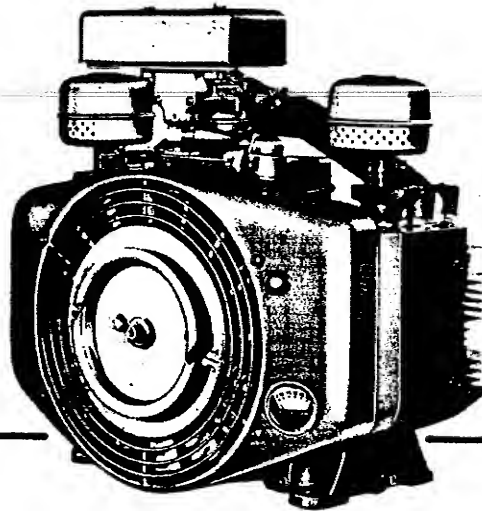


484 7808

Onan

Parts Manual

**CCKB
Engines**



927-0404
(Spec G-J)
5-78 (Spec G-J)
4-81
Printed in U.S.A.

SAFETY PRECAUTIONS

The following symbols are used in Onan manuals to alert users to the potentially dangerous conditions relating to maintenance of the equipment and replacement of parts. Please read and observe.

⚠ DANGER This symbol warns of immediate hazards which will result in severe personal injury or death.

⚠ WARNING This symbol refers to a hazard or unsafe practice which can result in severe personal injury or death.

⚠ CAUTION This symbol refers to a hazard or unsafe practice which can result in personal injury or product or property damage.

MODEL IDENTIFICATION

To avoid errors or delay in filling your parts order, always give the MODEL, SPEC NO., and SERIAL NO. from the Onan nameplate.

For handy reference, insert your nameplate information in the spaces below:

MODEL AND SPEC NO. _____

SERIAL NO. _____

PRODUCT SAFETY PRECAUTIONS

⚠ WARNING

Contact with **USED ENGINE OILS** has been identified by a United States federal agency and some USA state agencies as causing **CANCER** or **REPRODUCTIVE TOXICITY**. When checking or changing engine oils take all necessary precautions not to ingest, breathe the fumes or contact the used oil.

⚠ WARNING

Contact with **ASBESTOS** has been identified by a United States federal agency and some USA state agencies as causing **CANCER** or **REPRODUCTIVE TOXICITY**. When handling engine gaskets take all necessary precautions not to ingest, breathe or contact the dust from the gaskets! Use adequate ventilation and wear protective gloves, masks and clothing!

⚠ WARNING

Contact with **BENZINE** and **LEAD**, found in gasoline, fuel additives and solvents has been identified by a United States federal agency and some USA agencies as causing **CANCER** or **REPRODUCTIVE TOXICITY**. When checking, draining or adding gasoline and fuel additives, or using solvents take all necessary precautions not to ingest, breathe the fumes, or contact the liquids. Use adequate ventilation and wear protective gloves, masks and clothing!

INDEX

GROUP TITLES	LOCATION	
DATA TABLE	A4	
INTRODUCTION	A4	
STANDARD ENGINE GROUPS	A4	
Block, Cylinder	A6,7	
Box, Ignition Breaker	B5	
Camshaft	A10	
Carburetor Parts - Gasoline - Begin Spec H	B2	
Carburetor Parts - Gasoline - Spec G Only	B3	
Crankshaft and Flywheel	A5	
Fuel System	A12,13	
Gearcase	A11	
Governor	B10	
Housing, Air	B10	
Ignition System (Battery) - Key 2	B6,7	
Ignition System (Magnet) - Key 1	B4	
Piston and Rod	A10	
Pump Parts, Fuel	B1	
Service Kits and Miscellaneous	B11	
Spark Advance Mechanism - Key 1	A14	
Starter - Spec G and H	B8	
Starter - Begin Spec J	B9	Optional Group Number
OPTIONAL EQUIPMENT SECTION		
Alternator (Automotive Type) Left Side Mounting	C2	1
Alternator (Automotive Type) Right Side Mounting	C2	2
Alternator (Automotive Type) Top Mounting	C3	3
Alternator, Flywheel (15 Ampere Phelon) - Key 2	C4	5
Alternator, Flywheel (20 Ampere Syncro) - Key 2	C4	6
Alternator, Flywheel (WICO) - Key 2	C3	4
Box, Ignition Breaker - (High Profile)	C14	19
Carburetor (Gasoline, Electric Choke) - Spec G Only	D4	24
Carburetor (Gas-Gasoline, Manual Choke) - Spec G Only	D5	25
Carburetor (Gas-Gasoline, Electric Choke) - Spec G Only	D6	26
Carburetor (Gas) - Spec G Only	D7	27
Carburetor (Gasoline, Electric Choke) - Begin Spec H	D8	28
Carburetor (Gas-Gasoline, Manual Choke) - Begin Spec H	D9	29
Carburetor (Gas-Gasoline, Electric Choke) - Begin Spec H	D10	30
Carburetor (Gas) - Begin Spec H	D11	31
Choke, Thermo-Magnetic	D1	20
Clutch	C9	12
Control (Engine)	C9	13
Control (Governor) - Variable Speed	D3	22
Filter, Fuel	D3	23
Filter, Oil	C5	8
Fuel System (Gaseous Fuel)	C11	15
Gear Reduction (3:31)	C7	10
Gear Reduction (4:1)	C8	11
Generator (Automotive Type)	C5	7
Housing, Air - Vacu-Flo Cooling (And Flywheel)	C10	14
Miscellaneous Parts	D12,13	
Starter Rendi Pull - Key 1	C6	9
Starter (Solenoid Shift) - Key 2	D2	21
Tank, Fuel (Day) One Quart	C12	16
Tank, Fuel (Day) Two Quart	C12	17
Tank, Fuel (Side Mounted)	C13	18

INTRODUCTION

This catalog applies to the industrial CCKB Engines listed below and factory installed options. Parts are arranged in groups of related items. Each illustrated part is identified by a reference number corresponding to the same reference number in the parts list for that group. Parts illustrations are typical. Using the MODEL and SPEC NO. from the engine nameplate, select the Parts Key No. (1,2,etc., in the last column) that applies to your Engine Model and Spec No. This Parts Key No. represents parts that differ between models. Unless otherwise mentioned in the description, parts are interchangeable between models. Right and left engine sides are determined by *facing* the blower end (front) of the engine.

ENGINE DATA TABLE

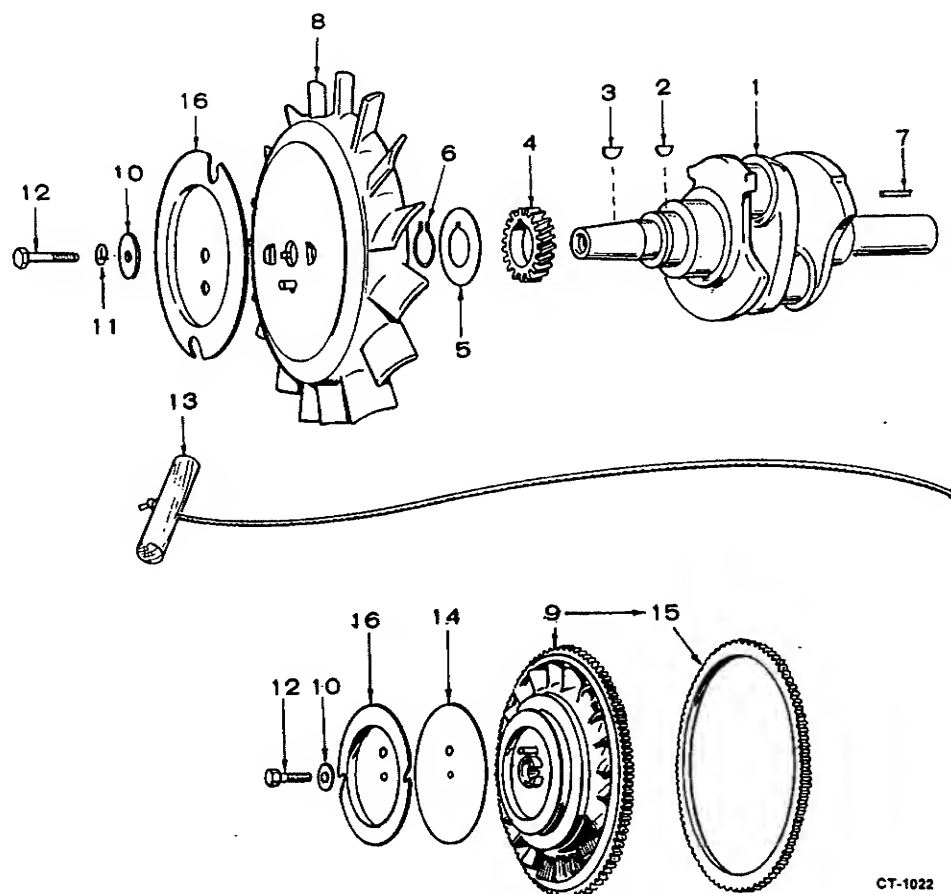
MODEL AND SPEC NO.	PARTS KEY NO.
CCKB-S*	1
ECCKB-MS/*	2

- * - The Specification Letter Advances (A to B,B to C, etc.) with manufacturing changes.
- £ - New model designations shown, begin during 1969. Previous designations used a V in the model to designate Vacu-Flo cooling.

STANDARD ENGINE PARTS SECTION

This section contains the engine parts used on standard engines listed in the Engine Data table.

CRANKSHAFT AND FLYWHEEL



CT-1022

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	104-1316	1	Crankshaft (Includes Parts Marked *)
2	515-0001	1	*Key Crankshaft Gear Mounting
3	515-0227	1	Key, Wheel Mounting (Kit) (Includes Parts Marked †)
	515-0002	1	†Key (#9-3/4" x 3/16")
	515-0098	1	*†Key (#61-5/8" x 3/16")
4	104-0032	1	Gear, Crankshaft
5	104-0043	1	Washer, Crankshaft Gear Retainer
6	518-0014	1	Lock, Crankshaft Gear Washer
7	KEY, CRANKSHAFT STUB (Order By Length)		
	515-0198	1	2-1/2" lg
	515-0202	1	2-3/8" lg
8	FLYWHEEL-KEY 1 (Includes Magnets: 2-160-0748, 2-160-0751)		
	160-0761	1	Spec G and H
	160-1072	1	Begin Spec J
9	FLYWHEEL (Includes Ring Gear)		
	134-1684	1	Key 2 - Spec G and H
	134-2728	1	Key 2 - Begin Spec J

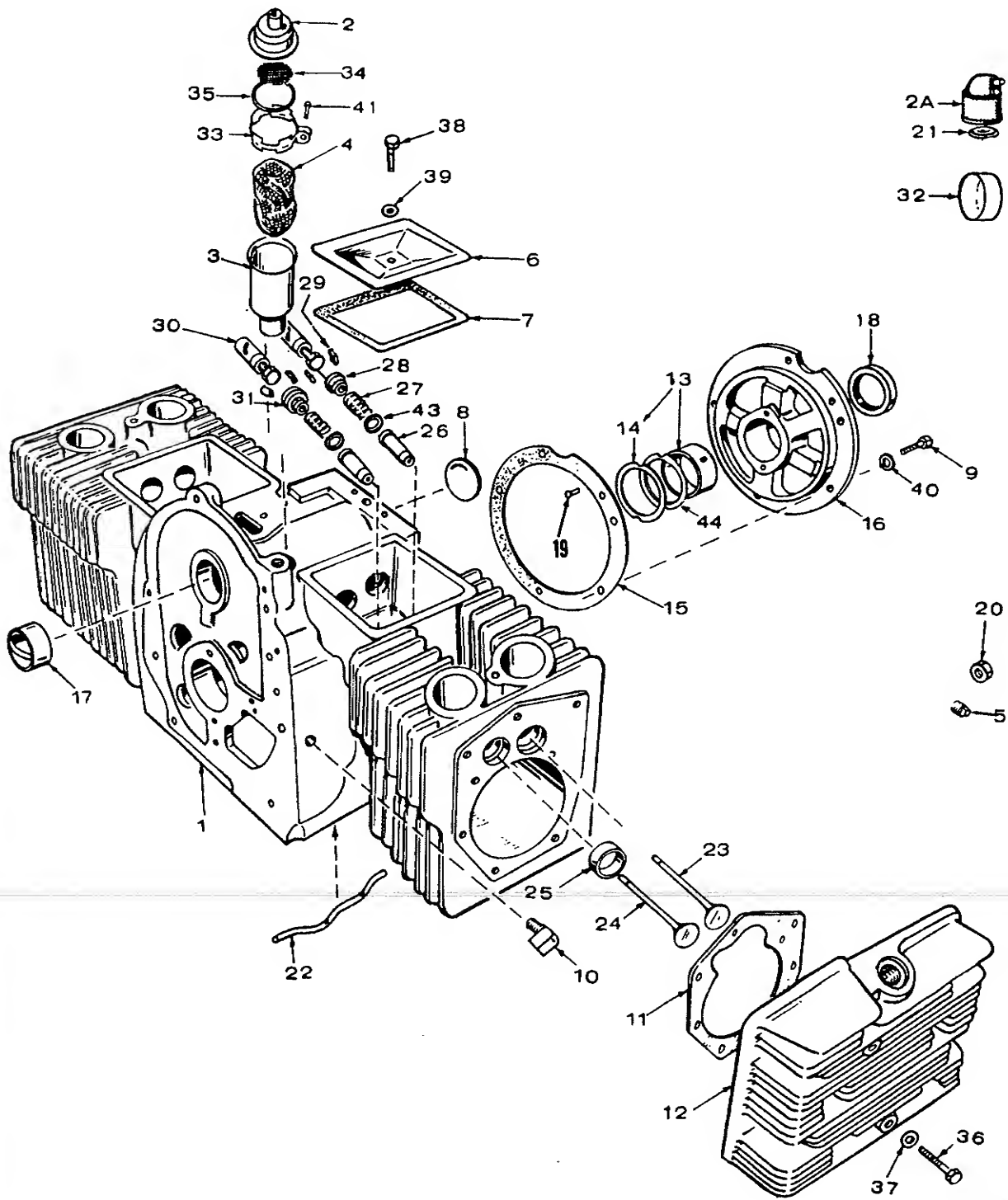
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
10	WASHER, FLAT-WHEEL MOUNTING		
	526-0017	1	Key 1 (15/32" ID x 1-1/4" OD x 1/4" Thk)
	526-0128	1	Key 2 (15/32" ID x 1-1/2" OD x 1/4" Thk)
11	850-0055	1	Washer, Lock - Spring Flywheel Mounting
12	SCREW, WHEEL MOUNTING		
	104-0170	1	Key 1
	104-0369	1	Key 2 - Spec G and H
	104-0170	1	Key 2 - Begin Spec J
13	192-0083	1	Roper, Manual Starting
14	192-0296	1	Backplate - Rope Sheave (Optional - Key 2)
15	134-0673	1	Ring Gear, Flywheel - Key 2
16	192-0308	1	Sheave Rope (Optional - Key 1, 2)

* - Parts Included in 104-1316 Crankshaft Kit.

† - Parts Included in 515-0227 Wheel Mounting Kit.

927-0404 (APRIL 1981)

CYLINDER BLOCK



C-1046

927-0404 (APRIL 1981)

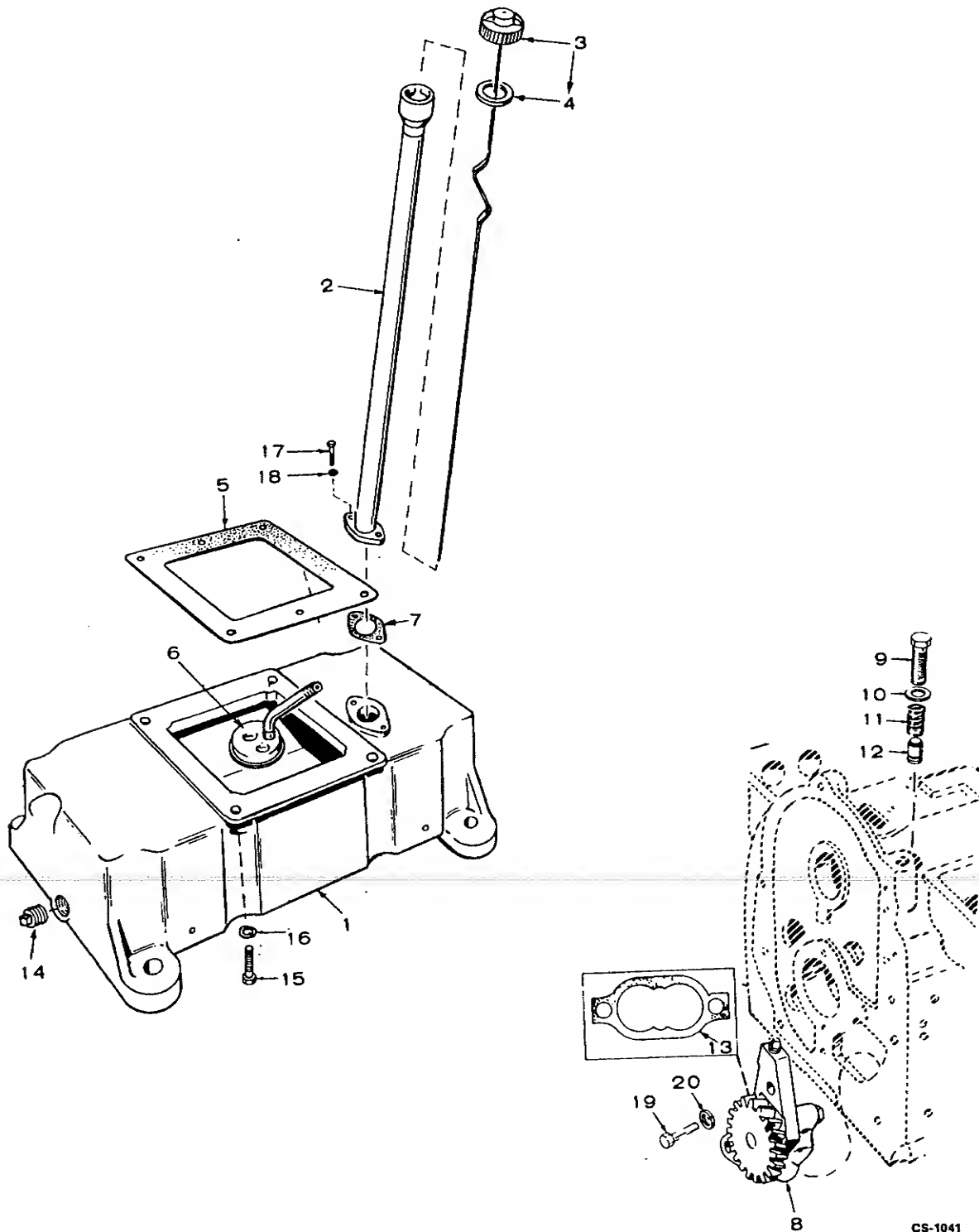
CYLINDER BLOCK

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	110-0915	1	Block Assembly, Cylinder (Includes Parts Marked *)
2	123-0954	1	Cap and Valve, Breather - Begin Spec H
2A	123-0787	1	Cap, Breather Tube - Spec G Only
3	TUBE, BREATHER		
	123-0868	1	Spec G Only
	123-0953	1	Begin Spec H
4	123-0865	1	Baffle, Breather Tube
5	505-0057	1	Plug (1/8"), Pipe - Oil Line Plug
6	110-0666	2	Cover, Valve Compartment
7	110-0667	2	Gasket, Valve Cover
8	517-0048	1	*Plug, Camshaft Expansion - Key 2
9	800-0512	5	*Screw, Cap - Hex Head Bearing Plate Mounting - Replaces Stud and Nut Used On Early Models (Special)
10	502-0020	1	Elbow, Street - Oil Line
11	110-0892	2	Gasket, Cylinder Head
12	HEAD, CYLINDER		
	110-0883	1	Left Hand (#1)
	110-0884	1	Right Hand (#2)
13	BEARING, CRANKSHAFT - FRONT AND REAR		
	101-0450	2	Standard - Begin Spec J
	101-0450-02	2	.002" Undersize
	101-0450-10	2	.010" Undersize
	101-0450-20	2	.020" Undersize
	101-0450-30	2	.030" Undersize
14	104-0575	2	*Washer, Crankshaft Bearing Thrust
15	101-0115	1	*Gasket Kit, Bearing Plate
16	101-0316	1	*Plate, Rear Bearing (Excludes Bearing)
17	101-0405	2	*Bearing, Camshaft Front and Rear (Precision)
18	509-0041	1	Seal, Bearing Plate
19	516-0072	2	*Pin, Main Bearing Stop
20	110-0445	5	Nut, Bearing Plate Stud (Special) Used On Early Models
21	123-0315	1	Valve, Breather Tube - Spec G Only
22	120-0386	1	*Tube, Crankcase Oil
23	110-0881	2	Valve, Intake

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
24	110-0880	2	Valve, Exhaust
25	INSERT, EXHAUST VALVE SEAT		
	110-0872	2	Standard
	110-0872-02	2	.002" Oversize
	110-0872-05	2	.005" Oversize
	110-0872-10	2	.010" Oversize
	110-0872-25	2	.025" Oversize
26	110-0902	4	Guide, Valve
27	110-0539	4	Spring, Valve
28	110-0893	2	Washer, Spring Retainer - Intake Valve
29	110-0639	8	Lock, Valve and Spring Retainer
30	TAPPET, VALVE		
	115-0006	4	Standard
	115-0006-05	4	.005" Oversize
31	110-0904	2	Rotocap, Exhaust Valve
32	110-1283	1	*Cover, Timing Control-Key 1
33	123-0951	1	Clamp, Breather Tube Cap - Begin Spec H
34	123-0958	2	Screen, Breather Tube - Begin Spec H
35	509-0117	1	"O" Ring, Breather Tube Cap - Begin Spec H
36	SCREW, CAP-HEX HEAD-CYLINDER HEAD MOUNTING		
	110-0879	8	Special
	114-0022	10	Special
37	526-0122	18	Washer, Flat - Cylinder Head Mounting (11/32" ID x 23/32" OD x 10 Ga. Thk)
38	800-0012	2	Screw, Cap - Hex Head Valve Cover Mounting (1/4-20 x 2-1/4" Lg)
39	526-0063	2	Washer, Flat - Valve Cover Mounting (17/64" ID x 7/16" OD x 1/32" Thk)
40	850-0045	5	Washer, Lock - Spring - Bearing Plate Mounting (5/16")
41	809-0035	1	Screw, Tapping, Pan Head Breather Clamp (#8 x 3/4")
42	516-0141	2	*Pin, Gear Cover Alignment
43	110-3136	2	*Gasket, Intake Valve Guide
44	104-0776	1	Shim, Crankshaft Thrust Bearing

* - Parts Included in 110-0915 Cylinder Block Assembly.

OIL SYSTEM



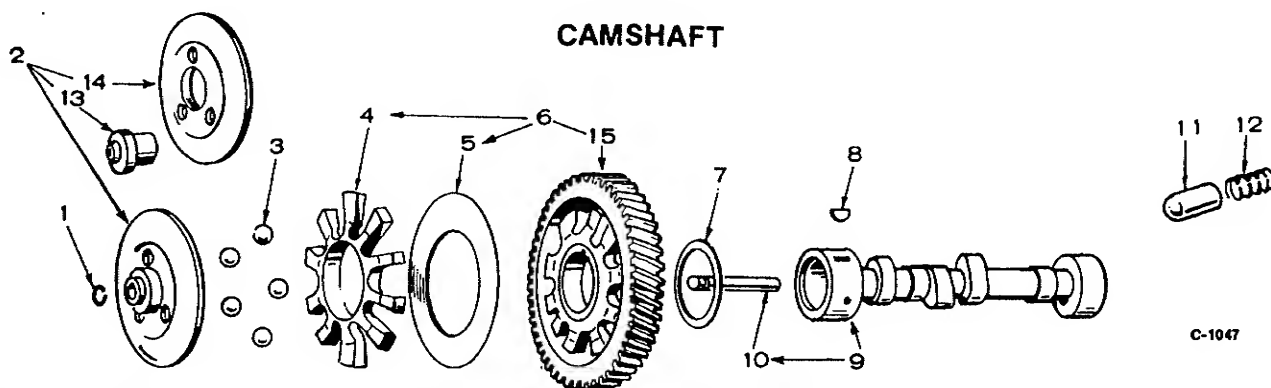
CS-1041

OIL SYSTEM

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	BASE, OIL		
	102-0468	1	Key 1
	102-0339	1	Key 2 - Spec G and H
	102-0861	1	Key 2 - Begin Spec J
2	TUBE, OIL FILL		
	123-0508	1	Spec G and H
	123-0674	1	Begin Spec J
3	CAP AND INDICATOR, OIL FILL		
	123-0506	1	Key 1 - Spec G and H
	123-0762	1	Key 1 - Begin Spec J
	123-0527	1	Key 2 - Spec G and H
	123-0694	1	Key 2 - Begin Spec J
4	123-0191	1	Gasket, Oil Fill Cap
5	102-0158	1	Gasket, Oil Base
6	CUP, OIL PUMP INTAKE		
	120-0413	1	Key 1
	120-0648	1	Key 2
7	141-0078	1	Gasket, Oil Fill Tube Mounting
8	120-0491	1	Pump, Oil (Internal Parts Not Sold Separately)
9	801-0048	1	Screw, Cap - Hex Head Oil By- Pass (3/8-24 x 3/4" lg)

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
10	526-0066	1	Washer, Flat - Oil By-Pass (25/64"ID x 9/16"OD x 1/6"Thk)
11	120-0140	1	Spring, Oil By Pass Valve
12	120-0398	1	Valve, Oil By Pass
13	120-0161	1	Gasket Kit, Oil Pump
14	PLUG, OIL DRAIN		
	505-0110	1	Some Early Models (3/8")
	505-0056	1	Late Models (1/2")
15	102-0455	4	Screw, Cap - Hex Head Oil Base Mounting (Special)
16	850-0050	4	Washer, Lock - Spring Oil Base Mounting (3/8")
17	800-0004	2	Screw, Cap - Hex Head - Oil Fill Tube Mounting (1/4-20 x 5/8" lg)
18	850-0040	2	Washer, Lock - Spring Oil Fill Tube Mounting (1/4")
19	800-0007	2	Screw, Lock - Spring - Oil Pump Mounting (1/4-20 x 1" lg)
20	850-0040	2	Washer, Lock - Spring - Oil Pump Mounting (1/4")

CAMSHAFT

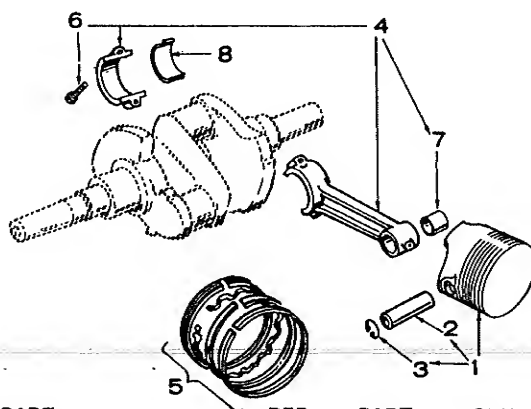


C-1047

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	150-0078	1	Ring, Camshaft Center Pin	10	150-0075	1	*Pin, Center - Camshaft
2	150-1695	1	Cup, Governor (Kit) (Includes Parts Marked **)	11	105-0058	1	Plunger, Camshaft Thrust (Manually Controlled Engine)
3	510-0015	5	Ball - Governor	12	105-0059	1	Spring, Camshaft Plunger (Manually Controlled Engine)
4	150-1257	1	†Spacer, Governor Fly Ball, Begin Serial #370369 During Spec H	13	150-1519	1	**Hub, Governor Cup
5	150-0077	1	†Plate, Governor Fly Ball, Begin Serial #370369 During Spec H	14	150-1520	1	**Cup and Bushing, Governor Cup
6	105-0332	1	Gear, Camshaft (Includes Parts Marked †)	15	105-0030	1	†Gear, Camshaft
7	105-0541	1	Washer, Camshaft Gear Thrust	* - Parts Included in Camshaft Assembly.			
8	515-0001	1	Key, Camshaft Gear Mounting	** - Parts Included in 150-1695 Governor Cup Kit.			
9	CAMSHAFT (Includes Center Pin)			† - Parts Included in 105-0332 Camshaft Gear Assembly.			
			KEY 1				
	105-0234	1	Spec G and H				
	105-0295	1	Begin Spec J				
	105-0238	1	Key 2				

</

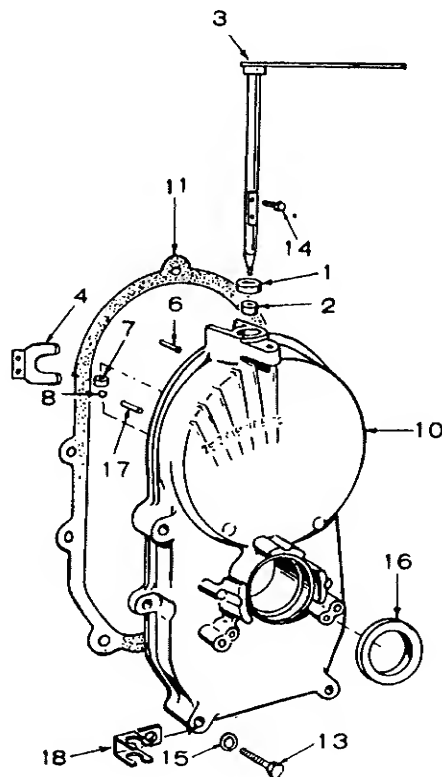
PISTON AND ROD



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	PISTON AND PIN (Includes Retaining Rings) Piston Has Slotted Oil Ring Grooves (Top Groove 5/32" From Top of Piston) (Includes Parts Marked *)			5	RING SET, PISTON		
112-0179	2	2	Standard	113-0153	2	2	Standard
112-0179-05	2	2	.005" Oversize	113-0153-05	2	2	.005" Oversize
112-0179-10	2	2	.010" Oversize	113-0153-10	2	2	.010" Oversize
112-0179-20	2	2	.020" Oversize	113-0153-20	2	2	.020" Oversize
112-0179-30	2	2	.030" Oversize	113-0153-30	2	2	.030" Oversize
112-0179-40	2	2	.040" Oversize	113-0153-40	2	2	.040" Oversize
2	112-0069	2	Pin, Piston	6	805-0010	4	Bolt, Place - Connecting Rod
3	112-0003	4	*Ring, Piston Pin Retainer	7	114-0036	2	Bushing, Piston Pin - Connecting Rod
4	114-0203	2	Rod Assembly, Connecting (Forged) - Includes Bushing and Place Bolts	8	BEARING, CONNECTING ROD		
				114-0188	4	4	Standard
				114-0188-02	4	4	.002" Undersize
				114-0188-10	4	4	.010" Undersize
				114-0188-20	4	4	.020" Undersize
				114-0188-30	4	4	.030" Undersize

* - Parts Included in 112-0179 Piston and Pin.

This diagram shows the front panel assembly in an exploded view. Component 9 is the main front panel with a handle and a lock mechanism. Component 12 is a screw used to secure the panel. Component 4 is a small bracket or latch. Component 5 is a screw used to secure the bracket. Component 6 is a small pin or clip used to secure the bracket.

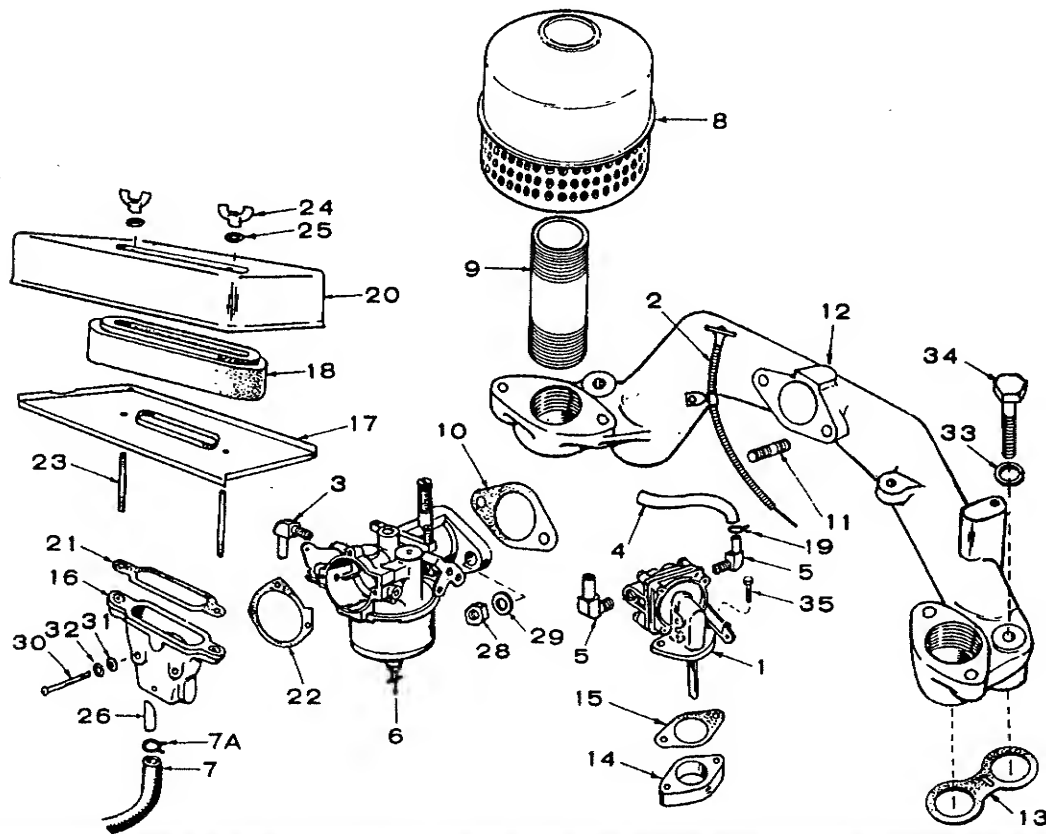


REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	509-0008	1	†*Seal, Oil - Governor Shaft
2	510-0013	1	†*Bearing, Governor Shaft Upper (Spec J Use 2)
3	ARM & SHAFT ASSEMBLY, GOVERNOR		
	150-1422	1	†Begin Spec J
	150-1315	1	*Spec G and H
4	YOKE, GOVERNOR SHAFT		
	150-1187	1	†*Begin Spec J
	150-0620	1	Spec G and H
5	518-0129	1	Ring, Yoke Retainer - Spec G and H
6	516-0130	1	†*Pin, Governor Cup Stop
7	BEARING, GOVERNOR SHAFT — LOWER		
	510-0013	1	*Begin Spec J
	510-0008	1	*Spec G and H
8	510-0014	1	†*Ball, Bearing - Governor Shaft
9	EXTENSION, GOVERNOR ARM - STANDARD GOVERNORS ONLY		
	150-1000	1	Spec G Only
	150-1073	1	Begin Spec H

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
10	COVER ASSEMBLY, GEAR		
	103-0655	1	Spec G and H (Includes Parts Marked *)
	103-0480	1	Begin Spec J (Includes Parts Marked †)
11	103-0011	1	Gasket, Gear Cover
12	815-0181	1	Screw, Cup - Hex Head with External Lock Washer (#10-32 x 1/2" lg)
13	SCREW, CAP-HEX HEAD		
	800-0034	1	5/16-18 x 2-1/4" lg
	800-0032	4	5/16-18 x 1-3/4" lg
14	815-0046	2	†Screw, Machine - Pan Head Yoke Mounting (#8-32 x 3/8" lg) Begin Spec J
15	850-0045	5	Washer, Lock-Spring-Gear Cover Mounting (5/16")
16	509-0040	1	†Seal, Gear Cover
17	516-0141	2	Pin, Gear Cover Alignment (5/16 x 1-1/8" lg)
18	167-0188	1	Clip, Oil Fill Mtg Tube

† - Parts Included in 103-0480 Gear Cover Assembly.

FUEL SYSTEM



FS-1199

FUEL SYSTEM

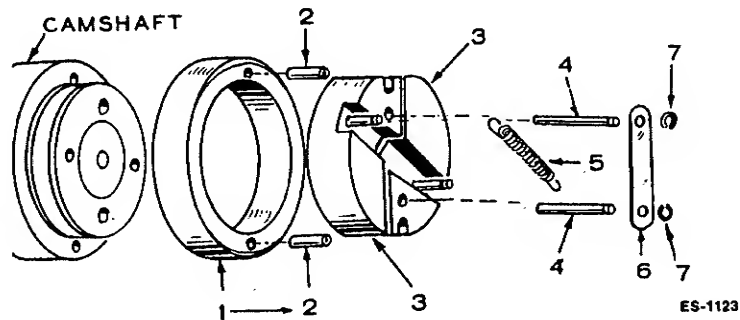
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	PUMP, FUEL - Includes Mounting Gasket (Includes Parts Marked †) (See Separate Group for Components)		
	149-1792	1	Key 1
	149-1784	1	Key 2
2	149-1024	1	Rod, Fuel Pump Primer - Key 1
3	ELBOW, CARBURETOR INLET		
	502-0313	1	Begin Spec J
	502-0065	1	Spec G and H
4	LINE, FUEL-PUMP TO CARBURETOR		
	149-1025	1	Spec G Only - Metal
	149-1097	1	Spec H Only - Metal
	503-0669	1	Begin Spec J - Rubber
5	ELBOW, FUEL PUMP		
	502-0313	2	Inlet and Outlet - Begin Spec J
	502-0002	1	Outlet - Spec G and H
	502-0020	1	Inlet - Spec G and H
6	CARBURETOR, GASOLINE - MANUAL CHOKE Includes Mounting Gasket (See Separate Groups for Components) (Includes Parts Marked *)		
	141-0774	1	Spec G
	141-0878	1	Begin Spec H
7	HOSE, BREATHER		
	503-0479	1	Spec G Only
	503-0546	1	Begin Spec H
7A	CLAMP, BREATHER HOSE		
	503-0170	1	5/8"
	503-0171	1	11/16"
8	155-0916	2	Muffler, Exhaust
9	505-0086	2	Nipple (1 x 2-1/2"), Exhaust
10	141-0281	1	*Gasket, Carburetor Mounting
11	520-0526	2	Stud, Carburetor Mounting
12	154-1161	1	Manifold, Intake
13	154-0013	2	Gasket, Intake Manifold to Cylinder Block
14	149-0045	2	Spacer, Fuel Pump Mounting (Spec J - Use 1)

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
15	149-0003	2	†Gasket, Fuel Pump Mounting
16	ADAPTER, AIR CLEANER		
	140-0760	1	Spec G Only
	140-1304	1	Begin Spec H
17	PAN, AIR CLEANER		
	140-0828	1	Spec G Only
	140-0595	1	Begin Spec H
18	140-0636	1	Element, Air Cleaner
19	503-0301	2	Clamp, Fuel Pump to Carburetor Hose
20	140-0594	1	Cover, Air Cleaner
21	140-0584	1	Gasket, Air Cleaner
22	GASKET, ADAPTER TO CARBURETOR		
	140-0585	1	Spec G Only
	140-1302	1	Begin Spec H
	140-1087	1	Begin Spec J - Key 1
23	520-0621	2	Stud, Air Cleaner
24	865-0020	2	Nut (1/4-20) Wing
25	526-0063	2	Washer (1/4")
26	123-0893	1	Tube, Adapter to Breather Hose
27	526-0063	2	Washer, (Copper), Pump Mounting - Used on Early Models
28	868-0002	2	Nut (5/16-24) - Carburetor Mounting
29	854-0017	2	Washer, Shakeproof - Carburetor Mounting (5/16")
30	813-0108	2	Screw (10-32 x 1/2"), Round Head - Air Inlet to Carburetor
31	526-0241	2	Washer (#10) - Flat Air Inlet Mounting
32	WASHER, LOCK		
	850-0030	2	Air Inlet Mounting (#10)
33	850-0050	2	Intake Manifold Mounting (3/8")
34	800-0057	2	Screw (3/8-16 x 2-3/4") - Intake Manifold Mounting
35	806-0009	2	Screw, Counterbore - Fuel Pump Mounting
	505-0008	2	†Plug (Not Shown)

* - Parts Included in 141-0774/141-0878 Carburetor Kit.

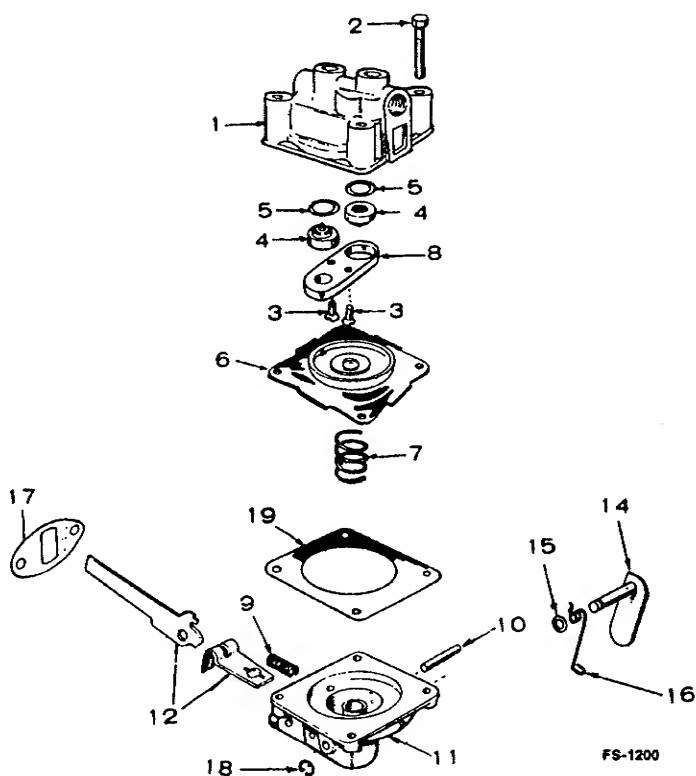
† - Parts Included in 149-1784/149-1792 Fuel Pump Kit.

SPARK ADVANCE MECHANISM - KEY 1



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	160-0791	1	Cam, Timing Control	5	SPRING, TIMING CONTROL		
2	516-0144	4	Pin, Roll (7/16'')	160-0727	1	Spec G and H	
3	WEIGHT ASSEMBLY (Includes Pins) - TIMING CONTROL			160-1051	1	Begin Spec J	
160-0789	2	Magneto Ignition (Spec G and H)		6	160-0726	1	Retainer, Timing Control (Spec G and H)
160-1049	2	Begin Spec J		7	RING, RETAINING - TIMING CONTROL		
160-0790	2	Battery Ignition (Spec G and H)		518-0185	2	Spec G and H	
160-1198	2	Begin Spec J		518-0129	2	Begin Spec J	
4	PIN, GROOVE - TIMING CONTROL						
516-0146	2	Spec G and H					
516-0172	2	Begin Spec J					

FUEL PUMP PARTS

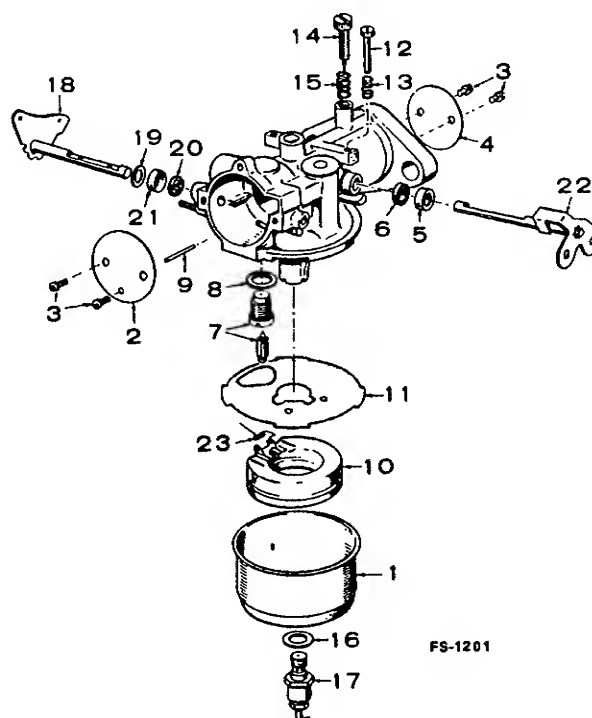


REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
	PUMP, FUEL (Includes Mounting Gasket)		
	149-1792	1	Key 1
	149-1784	1	Key 2
	149-0526	1	Kit, Fuel Pump Repair (Includes Parts Marked *)
	149-0003	1	*Gasket, Mounting
1		1	Body (Not Sold Separately)
2	815-0148	4	Screw (#8-32 x 7/8")
3	815-0147	2	Screw (#8-32 x 7/8")
			Phillips - Valve Retainer
4	149-0096	2	*Valve and Cage
5	149-0095	2	*Gasket, Valve
6	149-0582	1	*Diaphragm Assembly
7	149-0672	1	*Spring (Replaces 149-0093)
8	149-0539	1	Retainer, Valve Cage
9	149-0675	1	*Spring (Replaces 149-0094)

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
10	516-0113	1	Pin, Rocker Arm
11		1	Body (Not Sold Separately)
12	149-0710	1	Link and Arm. Rocker (Sold only as a set)
14	LEVER, PRIMER		
	149-1042	1	Key 1
	149-0551	1	Key 2
15	509-0065	2	Seal, "O" Ring
16	SPRING, PRIMER LEVER		
	149-1044	1	Key 1
	149-0404	1	Key 2
17	149-0003	1	*Gasket, Pump Mounting
18	518-0129	1	Ring, Retainer - Primer Lever
19	149-0858	1	*Gasket, Diaphragm - Lower Side

* - Parts Included In 149-0526 Repair Kit.

CARBURETOR PARTS - GASOLINE - BEGIN SPEC H



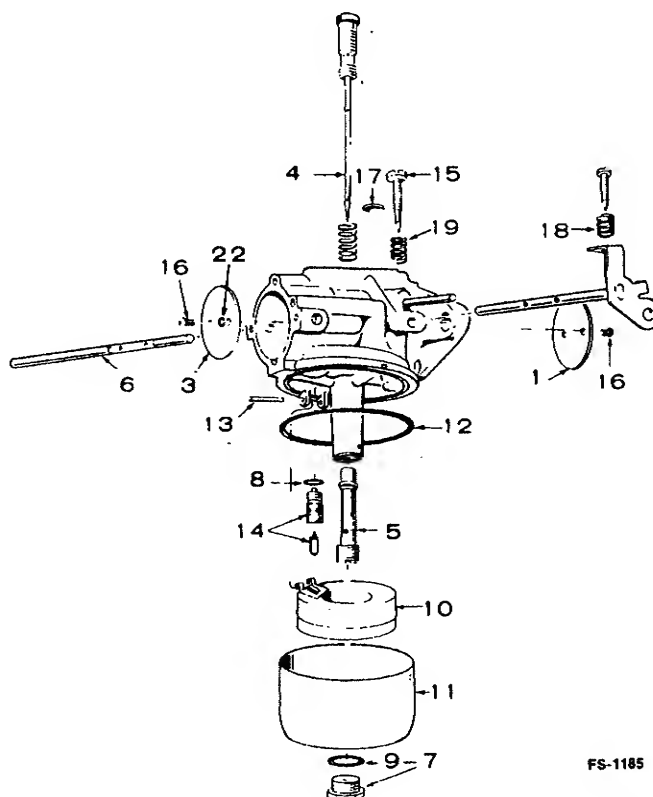
FS-1201

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
	CARBURETOR, GASOLINE (Includes Mounting Gaskets)		
	141-0878	1	Manual Choke
	141-0747	1	Kit, Carburetor Repair (Includes Parts Marked *)
	141-0748	1	Kit, Carburetor Gasket (Includes Parts Marked £)
	141-0281	1	£ Gasket Carburetor Flange
1	141-0708	1	Bowl, Fuel
2	141-0741	1	Plate, Choke
3	141-0698	4	Screw & Washer, Choke and Throttle Plate Mounting
4	141-0706	1	Plate, Throttle
5	141-0705	1	* Retainer, Seal
6	141-0661	1	£ Seal, Rubber
7	141-0830	1	* Valve Seat Assembly, Fuel
8	141-0811	1	£ Washer, Fuel Valve Seat
9	141-0703	1	* Shaft, Float
10	141-0702	1	Float Assembly

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
11	141-0701	1	£ Gasket, Bowl to Body
12	141-0700	1	Screw, Throttle Stop
13	141-0711	1	Spring, Throttle Stop
14	NEEDLE, ADJUSTING		
	141-0713	1	Gasoline Units
15	SPRING, IDLE NEEDLE		
16	141-0077	1	£ Washer, Main Jet Assembly
17	141-0712	1	Jet Assembly, Main (Adjustable)
18	SHAFT, CHOKE		
	141-0742	1	Manual Choke Units
19	141-0699	1	Washer
20	141-0697	1	£ Seal, Felt
21	141-0203	1	* Retainer, Felt Seal
22	141-0709	1	Shaft and Lever, Throttle
23	141-0799	1	* Spring, Float

* - Parts Included 141-0747 Carburetor Repair Kit.
£ - Parts Included 141-0748 Carburetor Gasket Kit.

CARBURETOR - GASOLINE - SPEC G ONLY

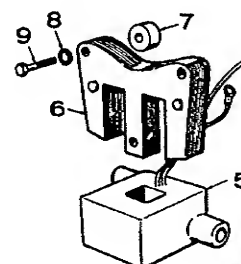
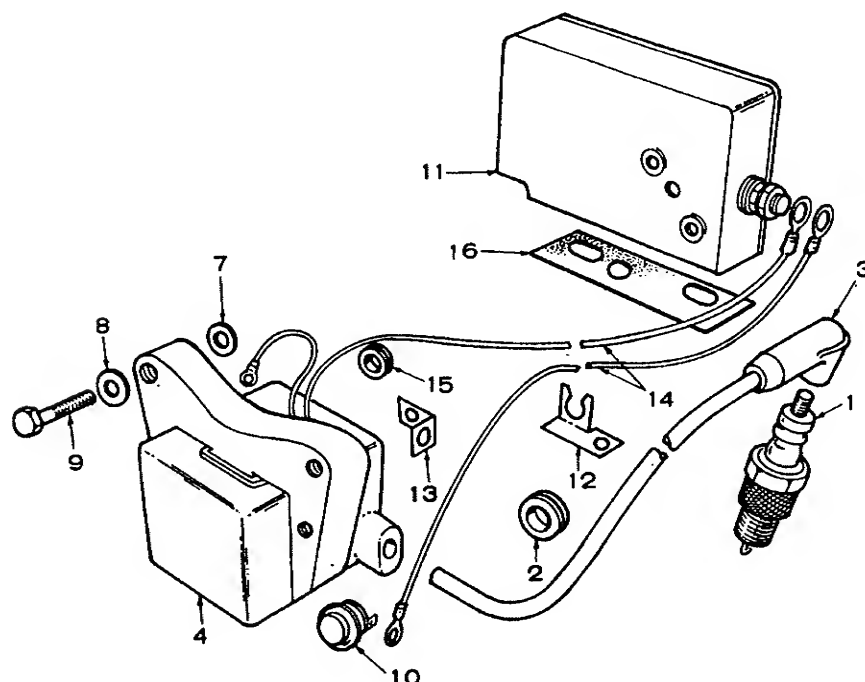


REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
	CARBURETOR, GASOLINE (Includes Mounting Gasket)		
	141-0774	1	Manual Choke
	143-0332	1	Kit, Carburetor Repair (Includes Parts Marked **)
	143-0201	1	**Kit, Carburetor Gasket (Includes Parts Marked *)
	141-0281	1	*Gasket, Carburetor Flange
1	143-0202	1	Valve, Throttle
3	143-0220	1	Valve, Choke - Manual Choke
4	143-0330	1	**Needle, Idle Jet and High Speed Adjusting
5	143-0329	1	**Nozzle
6	143-0221	1	Shaft and Lever, Choke
7	143-0208	1	Screw and Gasket, Bowl
8	143-0015	1	*Gasket, Fuel Inlet Valve
9	143-0209	1	*Gasket, Bowl Screw

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
10	143-0105	1	Float and Lever
11	143-0210	1	Bowl
12	143-0077	1	*Gasket, Bowl Ring
13	141-0703	1	**Pin, Float Lever
14	143-0341	1	**Valve, Fuel Inlet
15	143-0213	1	Screw, Idle Adjusting
16	812-0014	4	**Screw (#3-48 x 3/16") - Choke and Throttle Valve
17	143-0110	1	Plug, Expansion
18	143-0214	1	Spring, Throttle Adjusting Screw
19	143-0112	1	Spring, Idle Adjusting Screw
22	854-0003	4	**Washer, Lock (IT #3)

* - Parts Included in 143-0201 Carburetor Gasket Kit.
 ** - Parts Included in 143-0332 Carburetor Repair Kit.

IGNITION SYSTEM (MAGNETO) - KEY 1



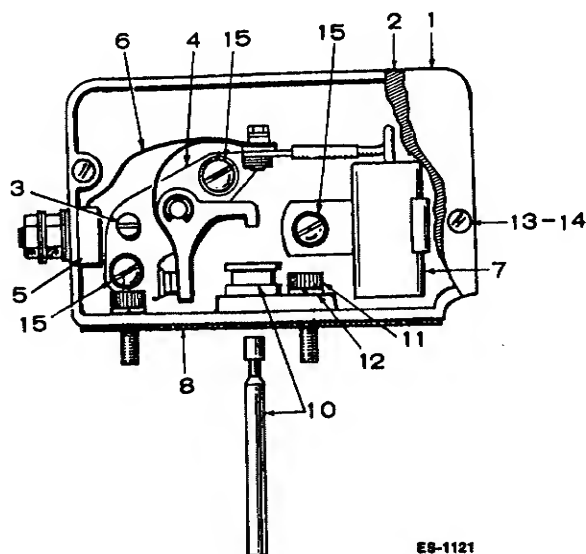
ES-1122

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	PLUG, SPARK		
	167-0241	2	Non-Resistor Type
	167-0237	2	Resistor Type
2	508-0095	2	Grommet, Rubber - Spark Plug Cables
3	CABLE, SPARK PLUG		
			Key 1
	167-1404	1	Right Hand - Spec G and H
	167-1593	1	Right Hand - Begin Spec J
	167-1403	1	Left Hand - Spec G and H
	167-1594	1	Left Hand - Begin Spec J
			Key 1
	167-1073	1	Right Hand - Spec G and H
	167-1593	1	Right Hand - Begin Spec J
	167-1330	1	Left Hand - Spec G and H
	167-1593	1	Left Hand - Begin Spec J
4	160-0752	1	Stator Assembly, Magneto (Includes Parts Marked *)

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
5	160-0750	1	*Coil, Magneto Stator
6	160-0749	1	*Pole Shoe, Magneto Stator
7	526-0015	2	Washer, Flat (9/32" ID x 9/16" OD x 1/16" THK)
8	526-0184	2	Washer, Flat (17/64" ID x 5/8" OD x #10 Gauge)
9	815-0259	2	Screw Cap - Hex Head (1/4-20 x 1-1/4" lg)
10	313-0018	1	Switch, Stop
11	160-0257	1	Box Assembly, Breaker (See Separate Group for Complete Breakdown)
12	167-0188	4	Clip, Spark Plug Cable
13	332-0273	1	Clip, Magneto Lead
14	334-0028	1	Lead, (4' pieces of wire)
15	508-0002	1	Grommet, Magneto Lead
16	160-0043	1	Gasket, Ignition Breaker Box Mounting

* - Parts Included in 160-0752 Magneto Stator Assembly.

IGNITION BREAKER BOX

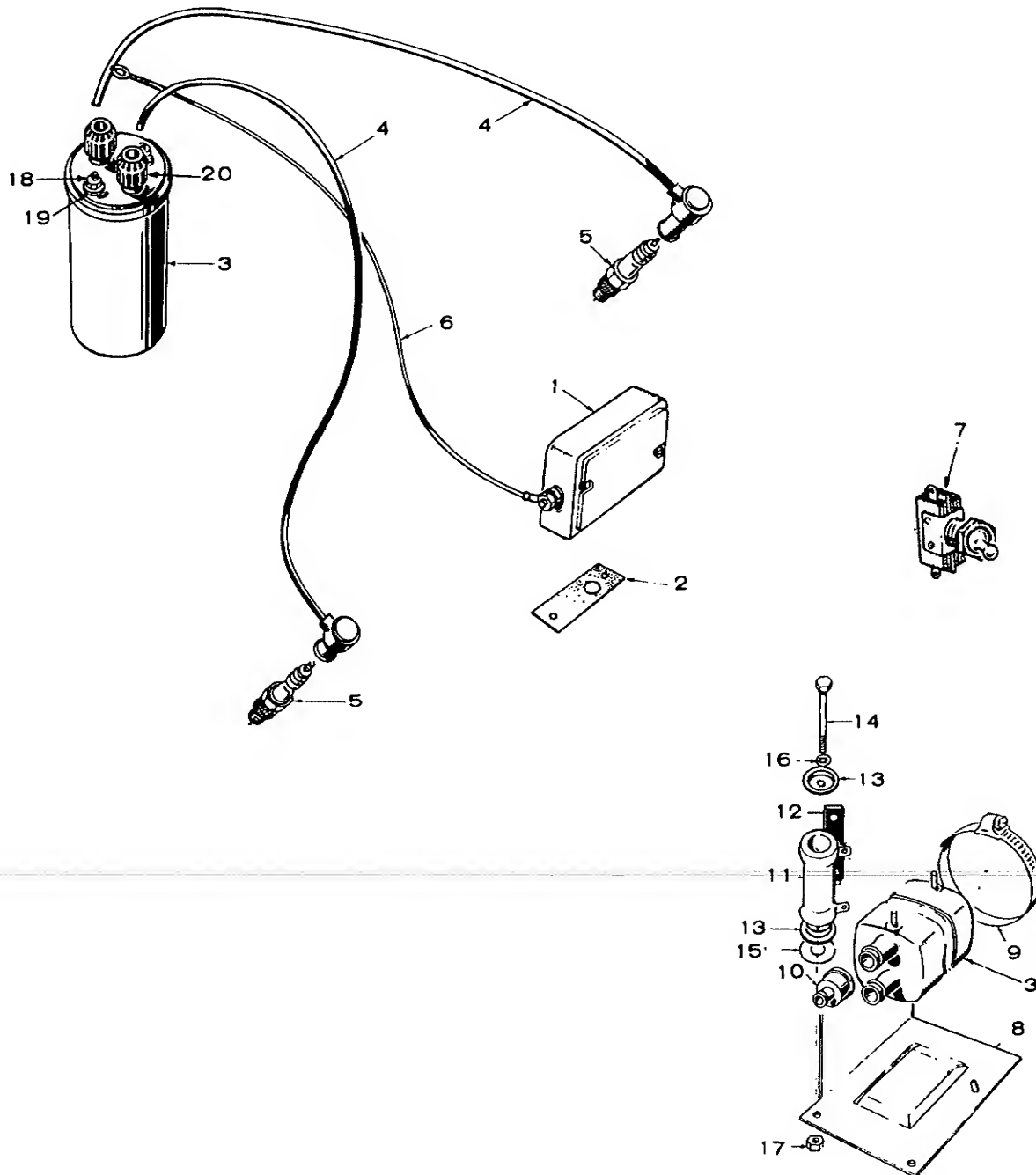


ES-1121

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
	160-0257	1	Box Assembly, Breaker - Complete (Includes Mounting Gasket, Washer and Screws) (Includes Parts Marked *)	7	312-0069	1	*Condenser, Ignition Points
1	160-0930	1	*Cover, Breaker Box	8	160-0043	1	*Gasket, Breaker Box Mounting
2	160-0150	1	*Gasket, Breaker Box Cover	10	160-0262	1	*Guide and Plunger, Ignition
3	160-0075	1	*Cam, Breaker Point Gap Adjusting	11	802-0034	2	*Screw, Cap - Socket Head (1/4-20 x 3/4" lg)
4	160-0002	1	*Point Set Breaker	12	850-0040	2	*Washer, Lock - Spring (1/4")
5	160-0349	1	*Block and Terminal Assembly	13	850-0025	2	*Washer, Lock - Spring (#8)
6	160-0428	1	*Strap, Point Set to Terminal Block	14	812-0077	2	*Screw, Machine - Round Head (#8-32 x 3/8" lg)
				15	518-0049	3	*Screw, Machine - Round Head W/External Tooth - (#8-32 x 1/4" lg)

* - Parts Included in 160-0257 Breaker Box Assembly.

IGNITION SYSTEM (BATTERY) - KEY 2



ES-1106

927-0404 (APRIL 1981)

B6

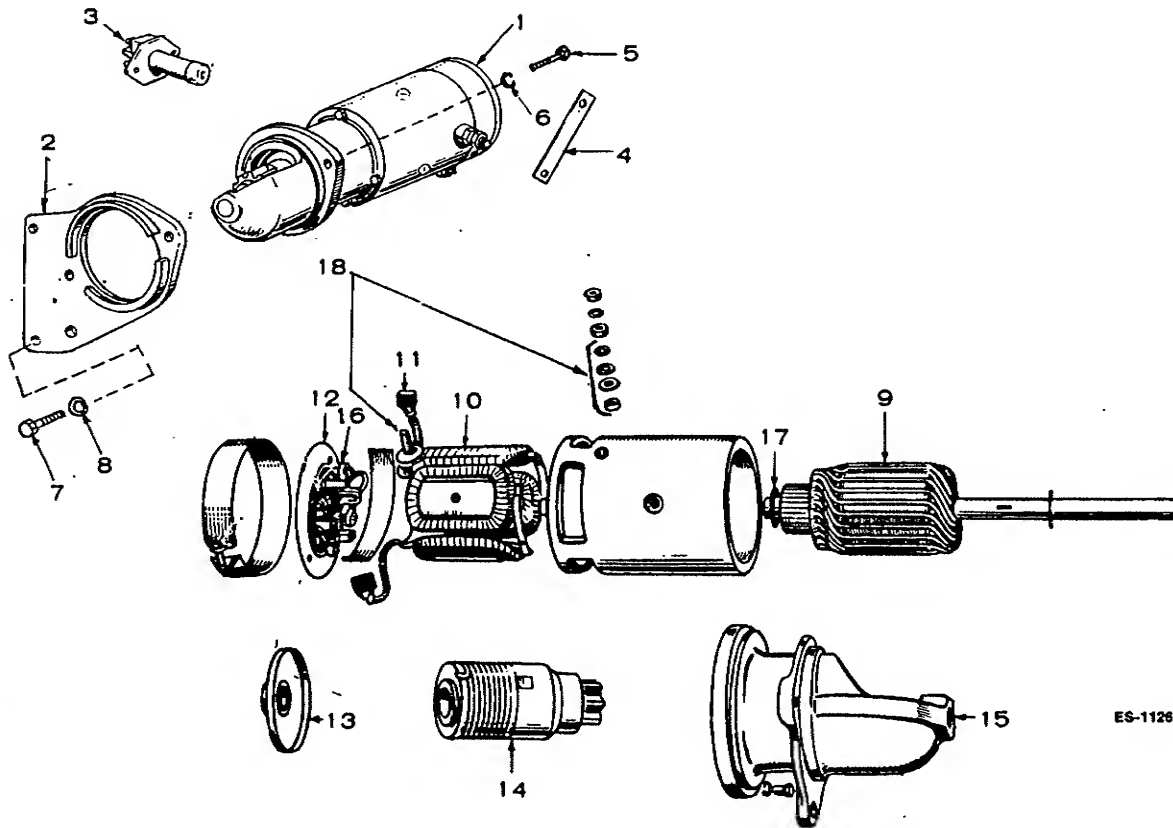
IGNITION SYSTEM (BATTERY) - KEY 2

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	160-0257	1	Box, Breaker - Complete (See Separate Group for Complete Breakdown of Components)
2	160-0043	1	Gasket, Breaker Box Mounting
3	COIL, IGNITION		
	166-0346	1	Spec G and H
	166-0535	1	Begin Spec J
4	CABLE, SPARK PLUG		
	167-1404	1	Key 1 Spec G and H R/H
	167-1073	1	Key 2 Spec G and H R/H
	167-1403	1	Key 1 Spec G and H L/H
	167-1330	1	Key 2 Spec G and H L/H
	167-1594	1	Key 1 Begin Spec J L/H
	167-1595	1	Key 2 Begin Spec J (24")
	167-1593	1	Key 1 Begin Spec J R/H
	167-1596	1	Key 2 Begin Spec J (15")
5	SPARK PLUG, IGNITION		
	167-0241	2	Non-Resistor Type
	167-0237	2	Resistor Type
	166-0702	1	Kit, Lead Replacement (Includes Parts Marked *)
6	336-4414	1	*Lead Assembly, Coil to Breaker Box - Begin Spec J
7	308-0002	1	Switch, Ignition On/Off

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
8	166-0402	1	Bracket, Coil Mounting - Spec G and H
9	503-0514	1	Clamp, Coil - Spec G and H
10	160-0558	2	Nipple, Rubber Coil - Spec G and H
11	304-0060	1	Resistor, Ignition - Spec G and H
12	304-0610	1	Support, Resistor Terminal - Spec G and H
13	304-0014	2	Washer, Resistor Mounting Spec G and H
14	813-0112	1	Screw, Machine - Round Head Resistor Mounting Spec G and H (#10-32 x 2-1/2" lg)
15	526-0179	1	Washer, Flat - Resistor Mounting (Spec G and H)
			(7/32" ID x 5/8" OD x 1/16" Thk)
16	854-0010	1	Washer, Lock - Internal Shakeproof-Resistor Mounting Spec G and H (#10)
17	870-0053	1	Nut, Hex - Resistor Mounting Spec G and H (#10-32)
18	166-0554	1	*Nut, Hex (Special)
19	850-2005	1	*Washer, Lock (MS)
20	166-0604	2	Nut, Ignition Coil

* - Parts Included in 166-0702 Lead Replacement Kit.

STARTER - SPEC G AND H



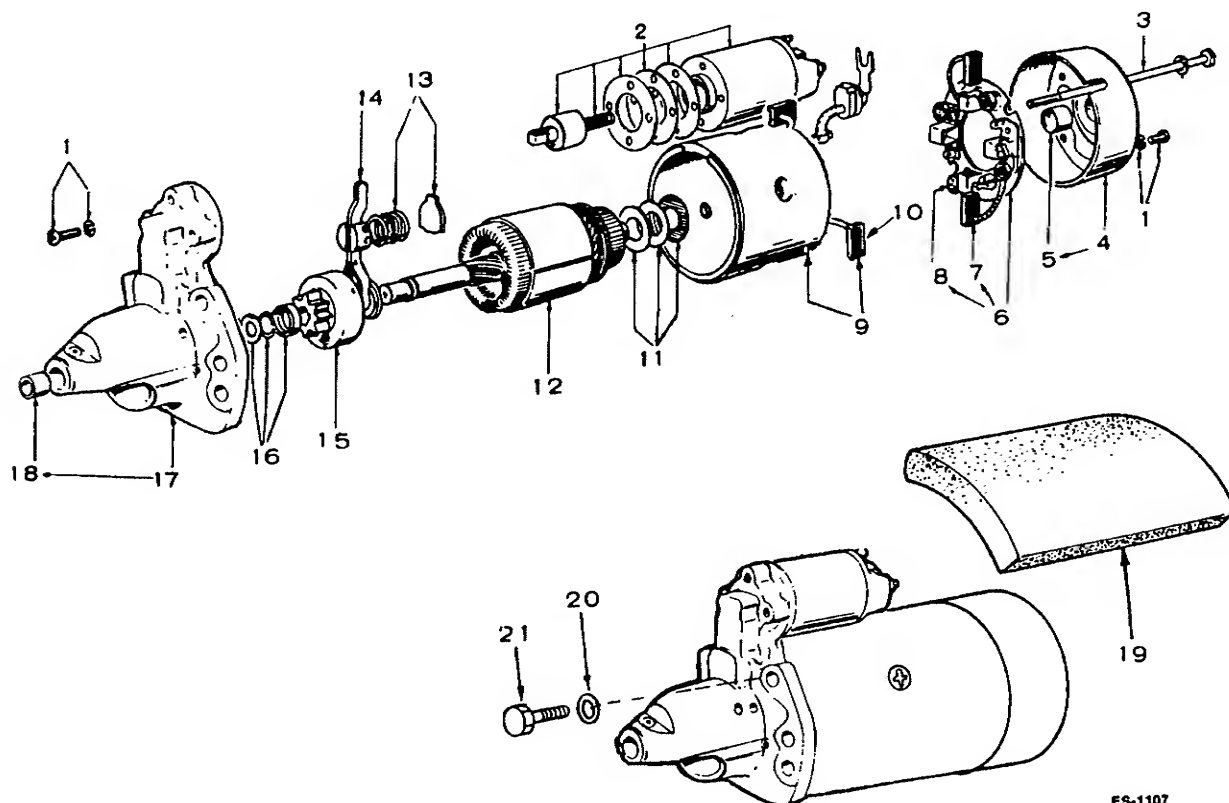
ES-1126

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	191-0511	1	Starter Motor - (Includes Parts Marked *)
2	191-0508	1	Flange, Starter Motor Mounting
3	308-0028	1	Switch, Start
4	332-0570	1	Jumper, Starter to Switch
5	SCREW, CAP-HEX HEAD-STARTER MOTOR MOUNTING		
	800-0049	1	3/8-16 x 7/8" lg
	800-0050	1	3/8-16 x 1" lg
6	850-0050	2	Washer, Lock - Spring Starter Motor Mounting (3/8")
7	102-0455	3	Screw, Cap - Hex Head - Starter Motor Flange Mounting
8	850-0050	3	Washer, Lock - Spring - Starter Motor Flange Mounting (3/8")

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
9	191-0517	1	*Armature
10	191-1017	1	*Coil Assembly Package, Field
11	191-0513	1	*Brush Set, Service
12	191-1018	1	*Head Assembly, Commutator End Band, Cover (Not Sold Separately)
13	191-1019	1	*Bearing Assembly, Intermediate
14	191-0271	1	*Drive Assembly, Bendix
15	191-0735	1	*Bearing, Drive End
16	191-1020	1	*Spring, Brush (Set of 4)
17	191-1021	1	*Washer, Armature Thrust (pkg.) Use as required
18	191-1022	1	*Stud, Terminal (pkg)

* - Parts Included in 191-0511 Starter Motor

STARTER - BEGIN SPEC J



ES-1107

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
	191-1052	1	Starter (Includes Parts Marked *)	10	191-1005	2	*Brush, Starter (Positive)
1	191-1011	1	*Screw & Washer Set	11	191-0997	1	*Insulating, Washer Set
2	191-0987	1	*Solenoid Assembly	12	191-1088	1	*Armature, Starter
3	191-0988	2	*Bolt - Hex Washer Head	13	191-0984	1	*Plate & Spring Set
4	191-1009	1	*Bracket, Rear - Starter (Includes Rear Sleeve Bearing)	14	191-0983	1	*Lever, Clutch
5	191-1010	1	*Bearing, Sleeve (Rear)	15	191-1087	1	*Clutch & Pinion Gear
6	191-1006	1	*#Holder, Brush (Includes Negative Brush and Brush Springs) (Includes Parts Marked Δ)	16	191-0991	1	*Stop Retaining Set - Pinion Gear
7	191-1008	1	#Δ*Brush, Starter (Negative)	17	191-1086	1	*Bracket, Front - Starter (Includes Front Sleeve Bearing)
8	191-1007	3	#Δ*Spring, Helical, Compression (Brush)	18	191-0971	1	*Bearing, Sleeve (Front)
9	191-1089	1	*Yoke Assembly, (Includes Frame, Pole Shoes, Field Coil and Replaceable Positive Brushes)	19	191-1076	1	Seal, Air Begin Spec J
				20	850-0050	2	Washer, Lock - Spring - Starter Mounting
				21	800-0050	2	Screw, Cap - Hex Head - Starter Motor Mounting (3/8-16 x 1")

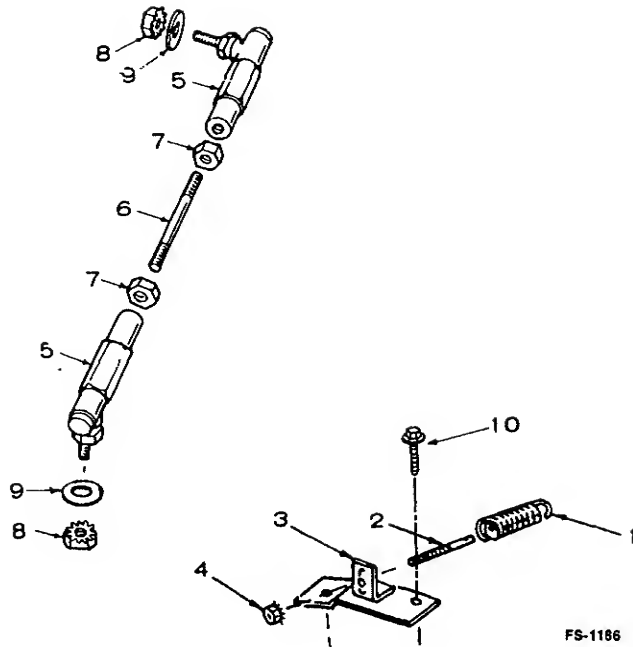
- Early Brush Holder equipped with Two (2) Negative Brushes and Four (4) Brush Springs-Completely Interchangeable with Current Brush Holder.

* - Parts Included in 191-1052 Starter Motor

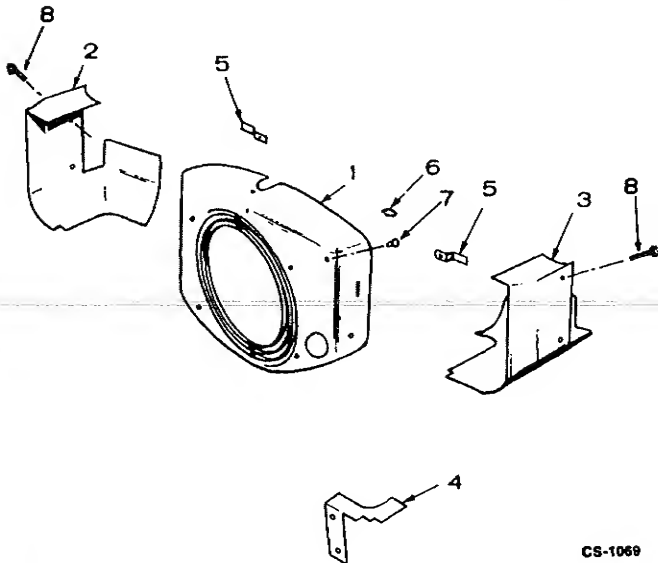
Δ - Parts Included in 191-1006 Brush Holder Assembly.

GOVERNOR

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	150-0098	1	Spring, Governor
2	150-1023	1	Stud, Speed Adjustment
3	150-1262	1	Bracket, Speed Stud
4	870-0131	1	Nut, Speed Adjusting (#10-32)
5	JOINT, BALL		
	150-0974	2	Spec G Only
	150-0939	2	Begin Spec H through Serial #540766 During Spec H-Plastic
	150-0639	2	Begin Serial #540767 During Spec H - Metal
6	LINK, THROTTLE		
	520-0187	1	Spec G and Begin Serial #540767 During Spec H
	520-0623	1	Begin Spec H through Serial #540766 During Spec H
7	870-0053	2	Palnut, Locking
8	870-0131	2	Nut, Keps - Locking Ball Joint (#10-32)
9	526-0196	2	Washer, Flat - Ball Joint (7/32"ID x 7/16"OD x 1/8"Thk)
10	821-0010	1	Screw, Self Lock - Hex Washer Head (1/4-20 x 1/2")



AIR HOUSING



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	HOUSING, BLOWER		
			Key 1
	134-1579	1	Spec G and H
	134-2830	1	Begin Spec J
			Key 2
	134-1596	1	Spec G and H
	134-2826	1	Begin Spec J
2	134-0589	1	Housing, Cylinder Air - Left
3	HOUSING, CYLINDER AIR (Right)		
	134-0588	1	Key 1
			Key 2
	134-0674	1	Spec G and H
	134-2791	1	Begin Spec J
4	134-0670	1	Baffle, Air - Key 2 Spec G and H
5	CLIP, HOUSING-CYLINDER AIR		
	134-0599	1	Right Side
	134-2108	1	Left Side
6	508-0095	2	Grommet, Blower Housing
7	313-0018	1	Button Stop - Begin Spec J - Key 1
8	815-0261	4	Screw, Cap - Hex Head (1/4-20 x 1/2")

SERVICE KITS AND MISCELLANEOUS

NOTE: For other kits, refer to the group for the part in question.

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
	98-1100	1	Decal Kit, Set
	160-0836	1	Ignition Tune-up Kit
	168-0103	1	Gasket Kit, Complete Engine
	168-0095	1	Gasket Kit, Carbon Removal
	ENGINE OVERHAUL KIT		
	522-0225	1	Spec G Only
	522-0239	1	Begin Spec H
	TOUCH-UP PAINT (Pressurized Can)		
	525-0137	1	Metallic Green (13 oz.)
	525-0305	1	Non-Metallic Green (13 oz.)
	525-0454	1	Greige Enamel (13 oz.)

OPTIONAL EQUIPMENT SECTION

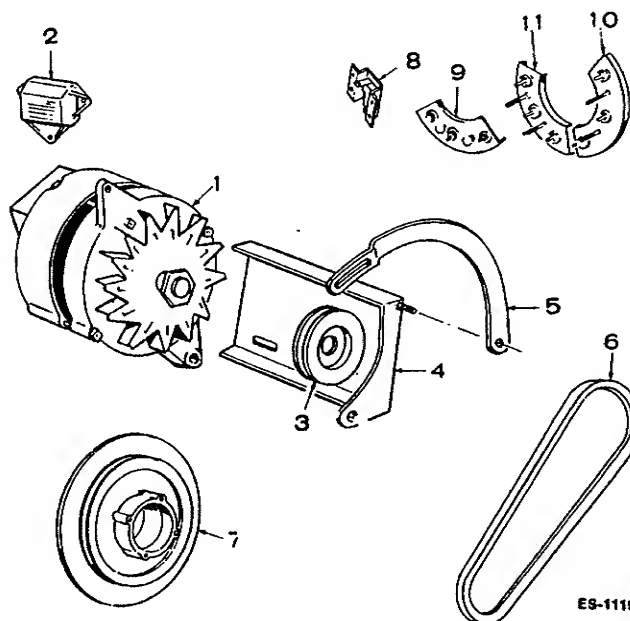
This section contains parts listing of factory installed options.
NOTE: options may not be applicable to all models; for field installations, additional parts are usually required.

OPTION 1 ALTERNATOR (AUTOMOTIVE TYPE - LEFT SIDE MOUNTING)

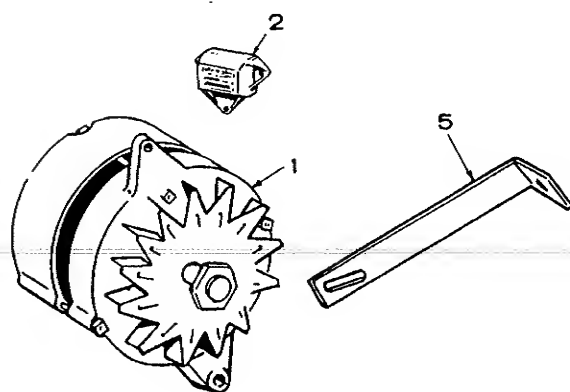
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	191-1233	1	*Alternator Assembly (Includes Parts Marked †) (35 Ampere, 12 Volt)-Motorola #RA-12NON451
	191-1232	1	†Alternator, 35 Amp
2	191-1243	1	†Regulator, Voltage
3	191-0623	1	†Pulley, Alternator
4	BRACKET, ALTERNATOR MOUNTING		
	191-0537	1	Pressure Cooled Engine
	191-0539	1	Vacu-Flo Cooled Engine
5	191-0535	1	Bracket, Alternator Adjusting
6	511-0051	1	Belt, Drive
7	191-0134	1	Pulley, Drive - Vacu-Flo Cooled Engine
8	191-0659	1	Brush and Holder Assembly (Part of 191-0573 Alternator)
9	191-0671	1	Diode Assembly, Isolation (Part of 191-0573 Alternator)
10	191-0662	1	Diode Assembly, Rectifier - Negative (Part of 191-0573 Alternator)
11	191-0661	1	Diode Assembly, Rectifier - Positive (Part of 191-0573 Alternator)

* - For components not listed, check alternator nameplate and contact your nearest Motorola dealer.

† - Parts Included in 191-1233 Alternator Assembly.



OPTION 2 ALTERNATOR (AUTOMOTIVE TYPE - RIGHT SIDE MOUNTING)



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	191-1233	1	*Alternator Assembly (Includes Parts Marked †) (35 Ampere, 12 Volt)-Motorola #RA-12NON451
	191-1232	1	†Alternator, 35 Amp
2	191-1243	1	†Regulator, Voltage
3	191-0623	1	†Pulley, Alternator
4	191-0575	1	Bracket, Alternator and Starter Mounting
5	191-0576	1	Bracket, Alternator Adjusting
6	511-0076	1	Belt, Drive
7	191-0659	1	Brush and Holder (Part of 191-0573 Alternator)

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
8	191-0671	1	Diode Assembly, Isolation (Part of 191-0573 Alternator)
9	191-0662	1	Diode Assembly, Rectifier - Negative (Part of 191-0573 Alternator)
10	191-0661	1	Diode Assembly, Rectifier - Positive (Part of 191-0573 Alternator)

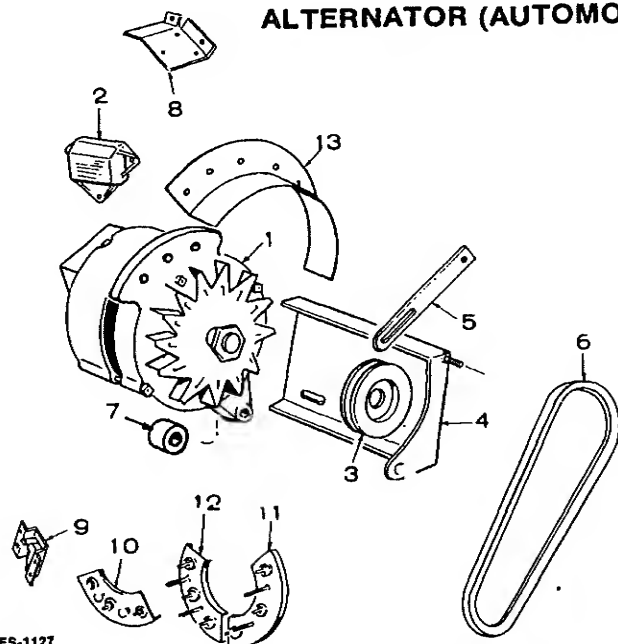
* - For components not listed, check alternator nameplate and contact your nearest Motorola dealer.

† - Parts Included in 191-1233 Alternator Assembly.

C2

927-0404 (APRIL 1981)

OPTION 3 ALTERNATOR (AUTOMOTIVE TYPE - TOP MOUNTING)



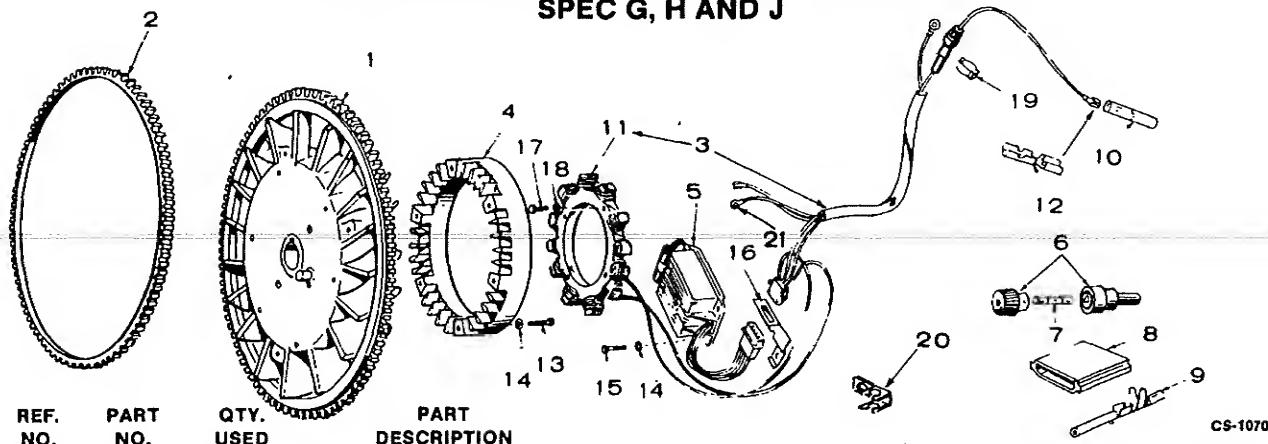
ES-1127

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	191-0543	1	*Alternator (35 Ampere, 12 Volt) - Motorola #A12N-451
2	191-0642	1	*Regulator, Voltage
3	191-0623	1	Pulley, Alternator
4	191-0636	1	Bracket, Alternator Mounting

5	BRACKET, ALTERNATOR ADJUSTING 191-1168	1	Pressure Cooled Engines - Begin Serial Number 992673 During Spec J
	191-0637	1	Pressure Cooled Engines - Spec A through Serial Number 992673 During Spec J
	191-0637	1	Vacu-Flo Cooled Engines
6	BELT, DRIVE 511-0090	1	Pressure Cooled Engines - Begin Serial Number 992673 During Spec J
	511-0067	1	Pressure Cooled Engines - Spec A through Serial Number 992673 During Spec J
	511-0067	1	Vacu-Flo Cooled Engines
7	191-0640	1	Spacer, Alternator Bracket
8	191-0638	1	Bracket, Regulator Mounting
9	191-0659	1	Brush and Holder Assembly (Part of 191-0543 Alternator)
10	191-0663	1	Diode Assembly, Isolation (Part of 191-0543 Alternator)
11	191-0662	1	Diode Assembly, Rectifier - Negative (Part of 191-0543 Alternator)
12	191-0661	1	Diode Assembly, Rectifier - Positive (Part of 191-0543 Alternator)
13	191-0725	1	Guard, Belt

* - For Components not listed, check alternator nameplate and contact your nearest Motorola dealer.

OPTION 4 FLYWHEEL ALTERNATOR (20 AMP WICO) - KEY 2 SPEC G, H AND J



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	134-1895	1	Flywheel (Includes Ring Gear)
2	134-0673	1	Gear, Ring - Flywheel
3	191-0740	1	Stator Assembly (Includes Parts Marked *)
4	191-0400	1	Rotor
5	305-0478	1	Regulator - Rectifier Assembly
6	321-0165	1	*Holder Assembly, Fuse
7	321-0162	1	*Fuse - 30 Amp.
8	323-0759	1	*Connector, Socket Housing
9	323-0488	4	*Socket, Connector
10	332-0556	1	*Connector, Faston
11	191-0724	1	*Stator Only
12	332-0529	1	*Terminal, Faston - Male

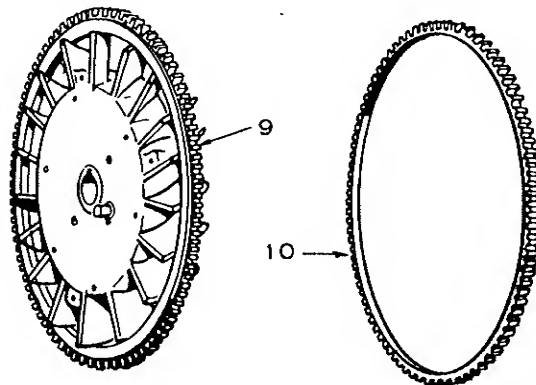
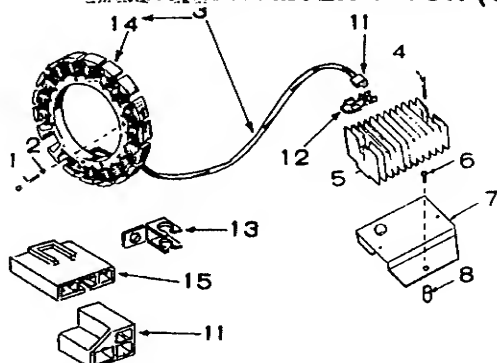
13	812-0156	6	Screw, Machine - Round Head (1/4-20 x 1-1/2")
14	850-0040	9	Washer, Lock - Spring (1/4")
15	800-0006	3	Screw, Cap - Hex Head (1/4-20 x 7/8")
16	332-1358	1	Bracket, Connector Mounting
17	813-0108	3	Screw, Machine - Round Head (#10-32 x 1/2")
18	850-0030	3	Washer, Lock - Spring (#10)
19	321-0169	1	Clip, Fuse Holder
20	167-0188	2	Clip, Stator Leads
21	332-0325	1	Terminal (#10)

* - Parts Included in 191-0740 Stator Assembly.

C3

927-0404 (APRIL 1981)

OPTION 5 **FLYWHEEL ALTERNATOR (15 AMPERE PHELON) - KEY 2 - BEGIN SPEC J**

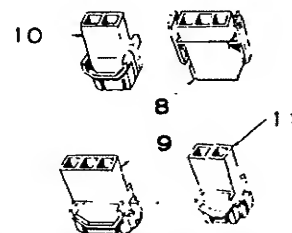
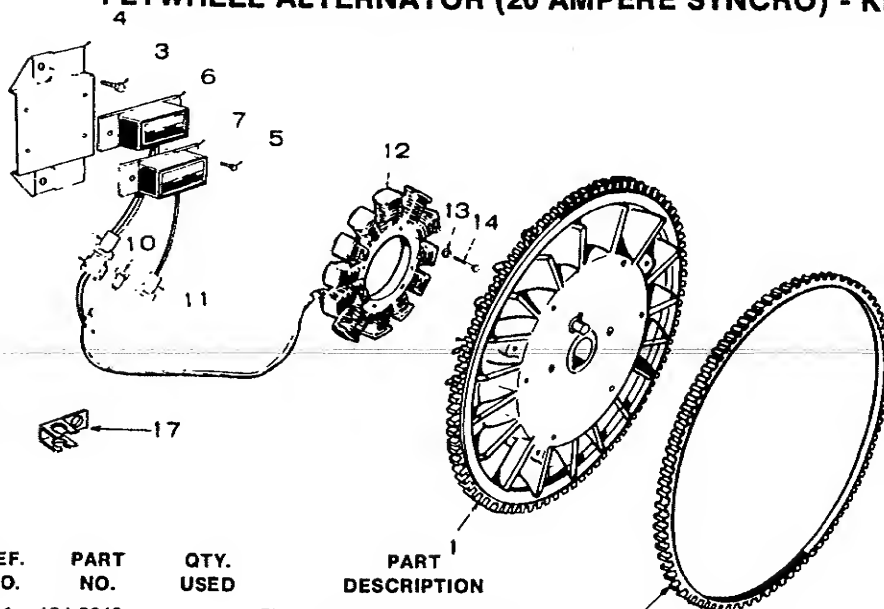


REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	813-0143	3	Screw, Machine - Round Head Cross Recessed (#10-32 x 1-3/8")
2	850-0030	3	Washer, Lock - Spring (#10)
3	191-1256	1	Stator Assembly (Includes Parts Marked *)
4	821-0018	2	Screw, Cap-Hex Head - Self Locking (1/4-20 x 5/8")
5	191-0886	1	Regulator, Voltage
6	821-0012	2	Screw, Cap - Hex Head - Self Locking (1/4-20 x 1-1/8")

7	191-1107	1	Bracket, Regulator Mounting
8	134-2100	2	Spacer, Regulator Mounting
9	134-2621	1	Flywheel (Includes Ring Gear)
10	134-0673	1	Gear, Ring - Flywheel
11	323-0853	1	*Body, Connector
12	332-2073	3	*Terminal
13	167-0188	2	Clip, Stator Leads
14	191-1254	1	*Stator Only
15	323-1075	1	*Body, Connector

* - Parts Included in 191-1256 Stator Assembly.

OPTION 6 **FLYWHEEL ALTERNATOR (20 AMPERE SYNCRO) - KEY 2 - BEGIN SPEC J**



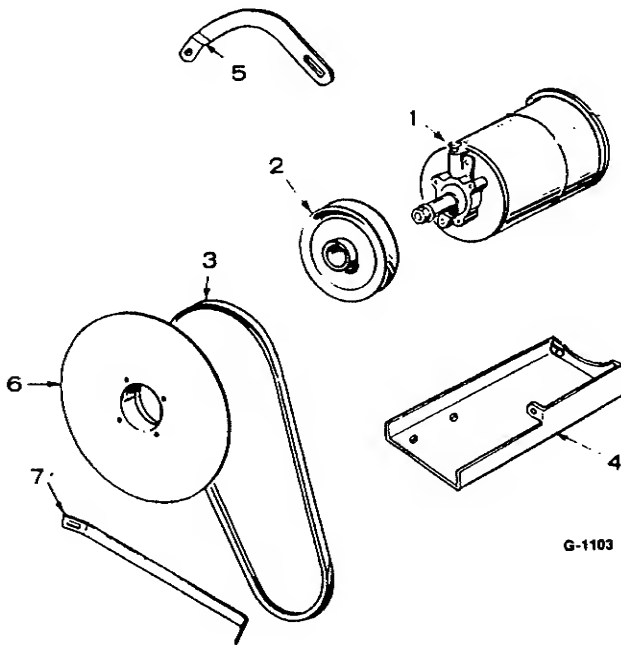
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	134-2642	1	Flywheel (Includes Ring Gear)
2	134-0673	1	Gear, Ring - Flywheel
3	821-0010	2	Screw, Cap - Hex Head Locking (1/4-20 x 1/2")
4	191-1107	1	Bracket, Regulator and Rectifier Mounting
5	815-0181	4	Screw, Cap - Hex Head W/ET Lockwasher (#10-32 x 5/16")
6	191-0938	1	Rectifier, Current
7	191-0939	1	Regulator, Voltage
8	323-0882	1	Plug, Connector (3 Female Contacts)
9	323-0881	1	Cap, Connector (3 Male Contacts)

10	323-0879	1	Cap, Connector (2 Male Contacts)
11	323-0880	1	Plug, Connector (2 Female Contacts)
12	191-0937	1	Stator, Alternator
13	850-0030	3	Washer, Lock - Spring (#10)
14	813-0108	3	Screw, Machine - Round Head Cross Recessed (#10-32 x 1-1/4")
15	323-0488	5	Contact, Connecting - Female
16	323-0496	5	Contact, Connecting - Male
17	167-0188	2	Clip, Stator Leads

C4

927-0404 (APRIL 1981)

OPTION 7 GENERATOR(AUTOMOTIVE TYPE)

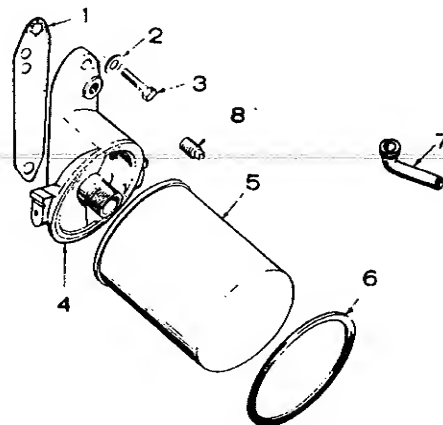


REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	191-0277	1	Generator
2	191-0229	1	Pulley, Generator
3	511-0051	1	Belt, Generator Drive
4	BRACKET, GENERATOR MOUNTING		
	191-0279	1	Pressure Cooled
	191-0304	1	Vacu-flo Cooled
5	191-0280	1	Bracket, Generator Adjustin
6	191-0134	1	Pulley, Generator Drive - Vacu-flo Cooled
7	191-0305	1	Brace, Generator Mounting Bracket - Vacu flo Cooled

† - For components, check nameplate and contact your nearest Delco Remy Dealer.

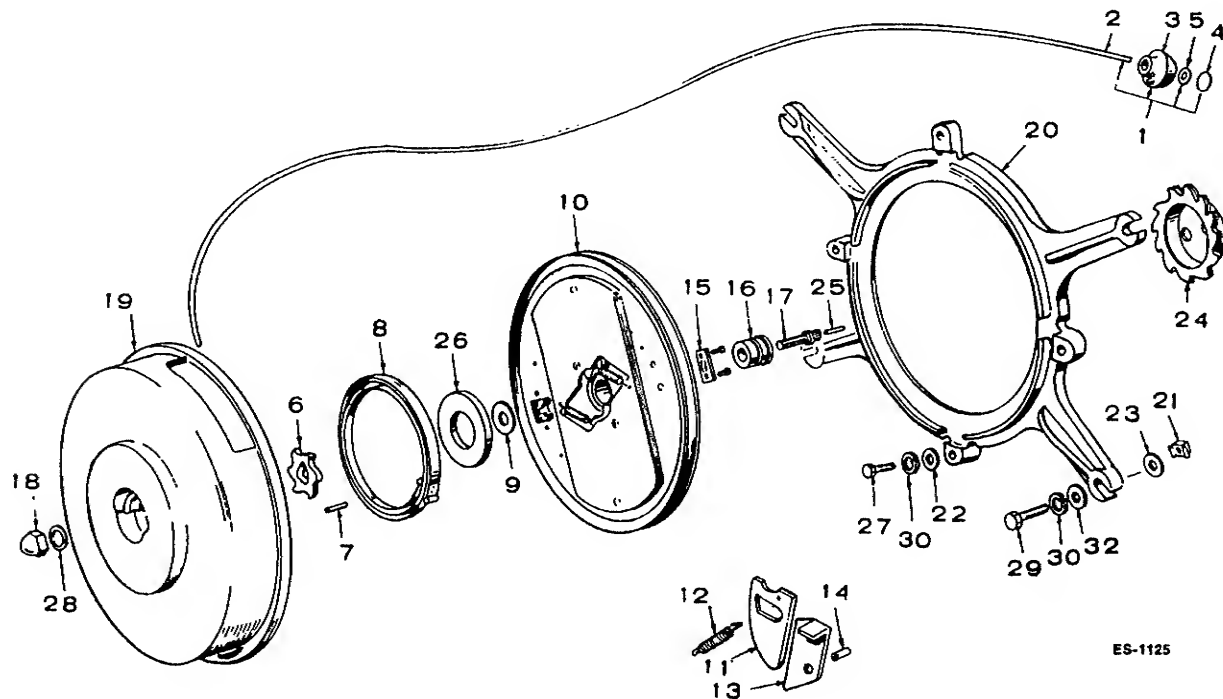
OPTION 8 OIL FILTER

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	122-0321	1	Gasket
2	526-0065	2	Washer, Flat - Copper (21/64" ID x 9/16" OD x 1/16" Thk)
3	800-0028	2	Screw, Cap - Hex Head (5/16-18 x 1")
4	122-0320	1	Adapter, Filter
5	122-0323	1	Filter, Spin-On
6	122-0347	1	Seal, Air
7	122-0345	1	Tube, Oil Drain
8	505-0057	1	Plug, Adapter Outlet (1/8")



927-0404 (APRIL 1981)

OPTION 9 READI-PULL STARTER - KEY 1



ES-1125

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
	KIT, STARTER-COMplete		
	192-0325	1	Begin Spec E (Includes Parts Marked †)
	192-0215	1	Specs A through D (Includes Parts Marked Δ)
1	192-0045	1	†ΔRope and Grip Assembly (Includes Parts Marked □)
2	192-0043	1	†Δ□Rope
3	192-0044	1	†Δ□Grip
4	517-0025	1	†Δ□Plug, Grip
5	526-0021	1	†Δ□Washer, Flat (17/64" ID x 3/4" OD x 1/16" Thk)
6	192-0153	1	†ΔWheel, Cog
7	516-0138	1	†ΔPin, Roll
8	192-0039	1	†ΔSpring, Recoil
9	526-0123	1	†ΔWasher, Thrust
10	192-0180	1	†ΔSheave, Rope (Includes Parts Marked *)
11	192-0172	2	†Δ*Pawl
12	192-0165	2	†Δ*Spring, Pawl
13	192-0168	2	†Δ*Arm, Ratchet
14	516-0110	4	†Δ*Pin, Roll (2) Pawl (2) Ratchet Arm
15	192-0167	1	†Δ*Clamp, Rope
16	192-0163	1	†ΔBearing, Sheave Hub
17	192-0323	1	†ΔScrew, Cap - Socket Head (Special)
18	862-0003	1	†ΔNut, Hex (3/8-16)
19	192-0152	1	†ΔCover, Starter
20	192-0186	1	†ΔRing, Mounting

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
21	870-0110	4	†ΔNut, Speed Grip
22	526-0180	4	†ΔWasher, Flat (17/16" ID x 7/8" OD x 1/8" Thk)
23	526-0130	4	†ΔWasher, Flat (17/64" ID x 1" OD x 1/16" Thk)
24	192-0309	1	†ΔWheel, Ratchet - Begin Spec E
25	516-0132	1	†ΔPin, Spiral - Brass
26	526-0168	1	†ΔWasher, Flat (1-15/32" ID x 3" OD x .047" Thk)
27	815-0137	4	†ΔScrew, Cap - Hex Head (1/4-20 x 1-1/4")
28	850-0050	1	†ΔWasher, Lock - Spring (3/8")
29	800-0007	4	†ΔScrew, Cap - Hex Head (1/4-20 x 1-1/4")
30	850-0040	8	†ΔWasher, Lock - Spring (1/4")
31	815-0137	2	†ΔScrew, Cap - Hex Head (1/4-20 x 1-1/4")
32	526-0158	4	†ΔWasher, Flat (.261" ID x 1" OD x 1/8" Thk)
33	526-0015	2	†ΔWasher, Flat (9/32" ID x 9/16" OD x 1/16" Thk)
34	192-0170	1	ΔWheel, Ratchet - Specs A through D
35	192-0218	2	ΔScrew, Cap - Hex Head - Specs A through D

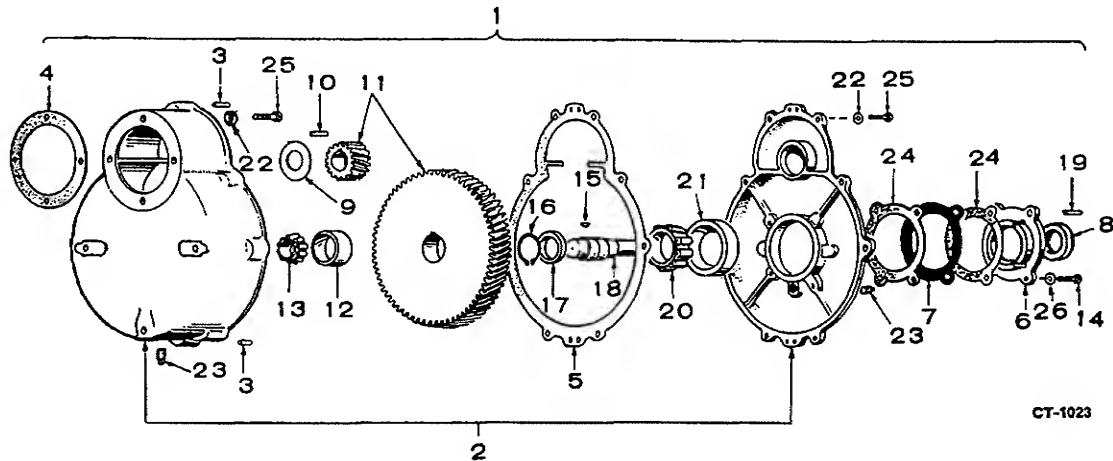
† - Parts Included in 192-0325 Starter Kit.

Δ - Parts Included in 192-0215 Starter Kit.

□ - Parts Included in 192-0045 Rope and Grip Assembly

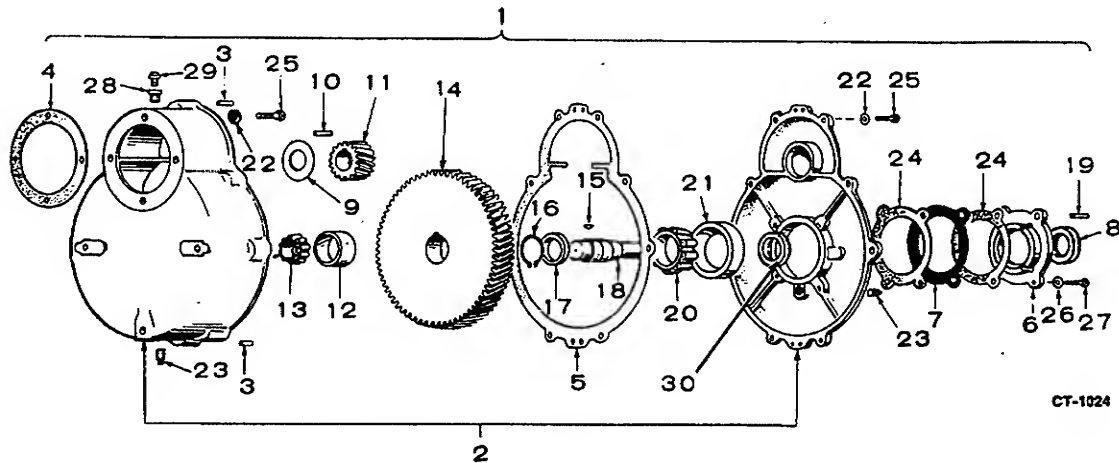
* - Parts Included in 192-0180 Rope Sheave.

OPTION 10 **GEAR REDUCTION (3.3:1)**



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	REDUCTION GEAR ASSEMBLY			14	800-0007	4	Screw, Cap - Hex Head (1/4-20 x 1")
	190-0444	1	Mounted Left Side Horizontal	15	515-0159	1	Key, Driven Gear
	190-0440	1	Mounted Right Side Horizontal	16	518-0013	1	Ring, Retainer
2	190-0050	1	Housing - Includes Cover (Also Order 2 #516-0012 Pins)	17	190-0202	1	Spacer, Bearing
3	516-0012	2	Pin, Dowel	18	190-0192	1	Shaft, Take-Off
4	190-0020	1	Gasket, Housing to Engine	19	515-0103	1	Key, Take-Off Shaft
5	190-0021	1	Gasket, Cover to Housing	20	510-0023	1	Cone, Roller Bearing
6	190-0016	1	Plate, Bearing Retainer	21	510-0024	1	Cup, Roller Bearing
7	190-0115	1	Shim Set, End Play Adjustment	22	850-0045	12	Washer, Lock - Spring (5/16")
8	509-0016	1	Seal, Oil	23	505-0054	3	Plug, Pipe (1/4)
9	190-0195	1	Washer, Pinion Gear	24	190-0306	2	Gasket, Bearing Plate to Housing
10	515-0142	1	Key, Pinion Gear	25	800-0028	16	Screw, Cap - Hex Head (5/16-18 x 1")
11	190-0447	1	Gear, Set (Pinion and Driven)	26	526-0063	4	Washer, Flat - Copper (17/64" ID x 7/16" OD x 1/22" Thk)
12	510-0022	1	Cup, Roller Bearing				
13	510-0021	1	Cone, Roller Bearing				

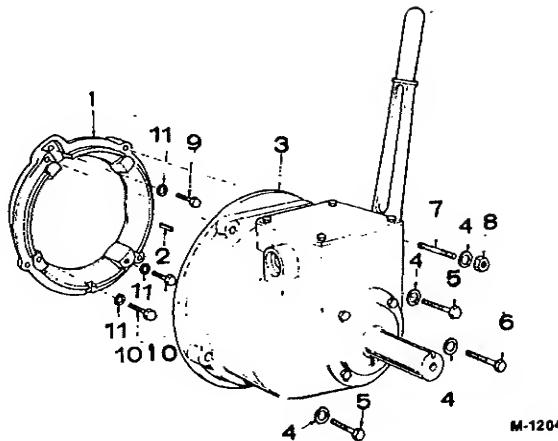
OPTION 11 GEAR REDUCTION (4:1)



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	REDUCTION GEAR ASSEMBLY		
	190-0193	1	Mounted Left Side Horizontal (No Longer Available)
	190-0299	1	Mounted Right Side Horizontal (No Longer Available)
	FOR REPLACEMENT ORDER:		
	190-0440	1	Reduction Gear Assembly, Mounted Right Side Horizontal
	190-0447	1	Gear, Set (Pinion & Driver)
	190-0195	1	Washer, Pinion Gear
	515-0142	1	Key, Pinion Gear
	190-0410	1	Mounted Vertical Down
2	190-0050	1	Housing - Includes Cover (No Longer Available) (Also Order 2 #516-0012 Pins)
3	516-0012	2	Pin, Dowel
4	190-0020	1	Gasket, Housing to Engine
5	190-0021	1	Gasket, Cover to Housing
6	190-0016	1	Plate, Bearing Retainer
7	190-0115	1	Shim Set, End Play Adjustment
8	516-0057	1	Seal, Oil
9	190-0195	1	Washer, Pinion Gear
10	515-0142	1	Key, Pinion Gear
11	190-0191	1	Gear, Pinion (No Longer Available)
12	510-0022	1	Cup, Roller Bearing
13	510-0021	1	Cone, Roller Bearing
14	190-0190	1	Gear, Driven (No Longer Available)

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
15	515-0159	1	Key, Driven Gear
16	518-0013	1	Ring, Retainer
17	190-0202	1	Spacer, Bearing
18	190-0192	1	Shaft, Take-Off
19	515-0103	1	Key, Take-Off Shaft
20	510-0023	1	Cone, Roller Bearing
21	510-0024	1	Cup, Roller Bearing
22	850-0045	12	Washer, Lock - Spring (5/16")
23	PLUG, PIPE (1/4) 505-0054	3	Mounted Left Side and Mounted Right Side Gear Box
	505-0054	2	Mounted Vertical Down Gear Box
24	190-0306	2	Gasket, Bearing Plate to Housing
25	800-0028	12	Screw, Cap - Hex Head (5/16-18 x 1")
26	526-0063	4	Washer, Flat - Copper (17/64"IDx7/16"ODx1/32"Thk)
27	800-0007	4	Screw, Cap - Hex Head (1/4-20 x 1")
28	505-0007	1	Bushing, Reducer - Mounted Vertical Down Gear Box
29	518-0172	1	Vent, Mounted Vertical Down Gear Box
30	509-0016	1	Seal, Oil

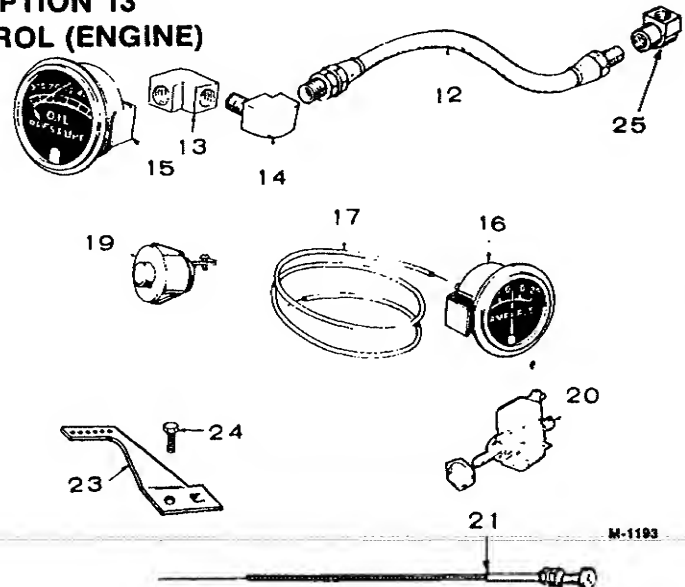
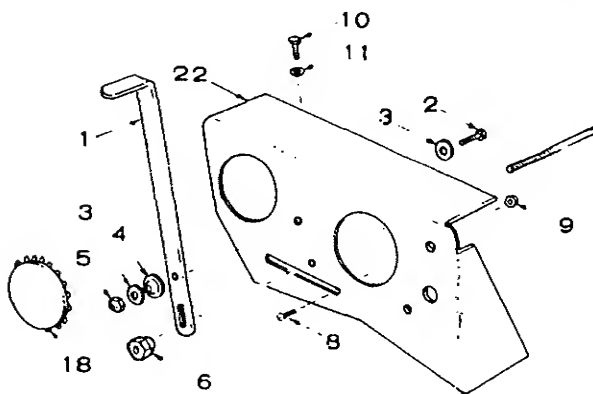
OPTION 12 CLUTCH (ROCKFORD)



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
	190-0178	1	Kit, Clutch - Complete
1	190-0171	1	Adapter, Clutch to Engine
2	515-0041	1	Key, Clutch
3	190-0174	1	*Clutch Assembly (Rockford #PTA-S5-1/2-19S)
4	850-0055	3	Washer, Lock - Spring (7/16")
5	800-0074	1	Screw, Cap - Hex Head (7/16-14 x 1-3/4")
6	800-0075	2	Screw, Cap - Hex Head (7/16-14 x 2")
7	520-0126	1	Stud (3/8 x 3-7/8")
8	104-0091	1	Nut, Hex (Special)
9	800-0053	1	Screw, Cap - Hex Head (3/8-16 x 1-3/4")
10	800-0054	2	Screw, Cap - Hex Head (3/8-16 x 2")
11	850-0050	4	Washer, Lock - Spring (3/8")

* - For components, check Clutch nameplate and contact your nearest Rockford Clutch Dealer.

OPTION 13 CONTROL (ENGINE)

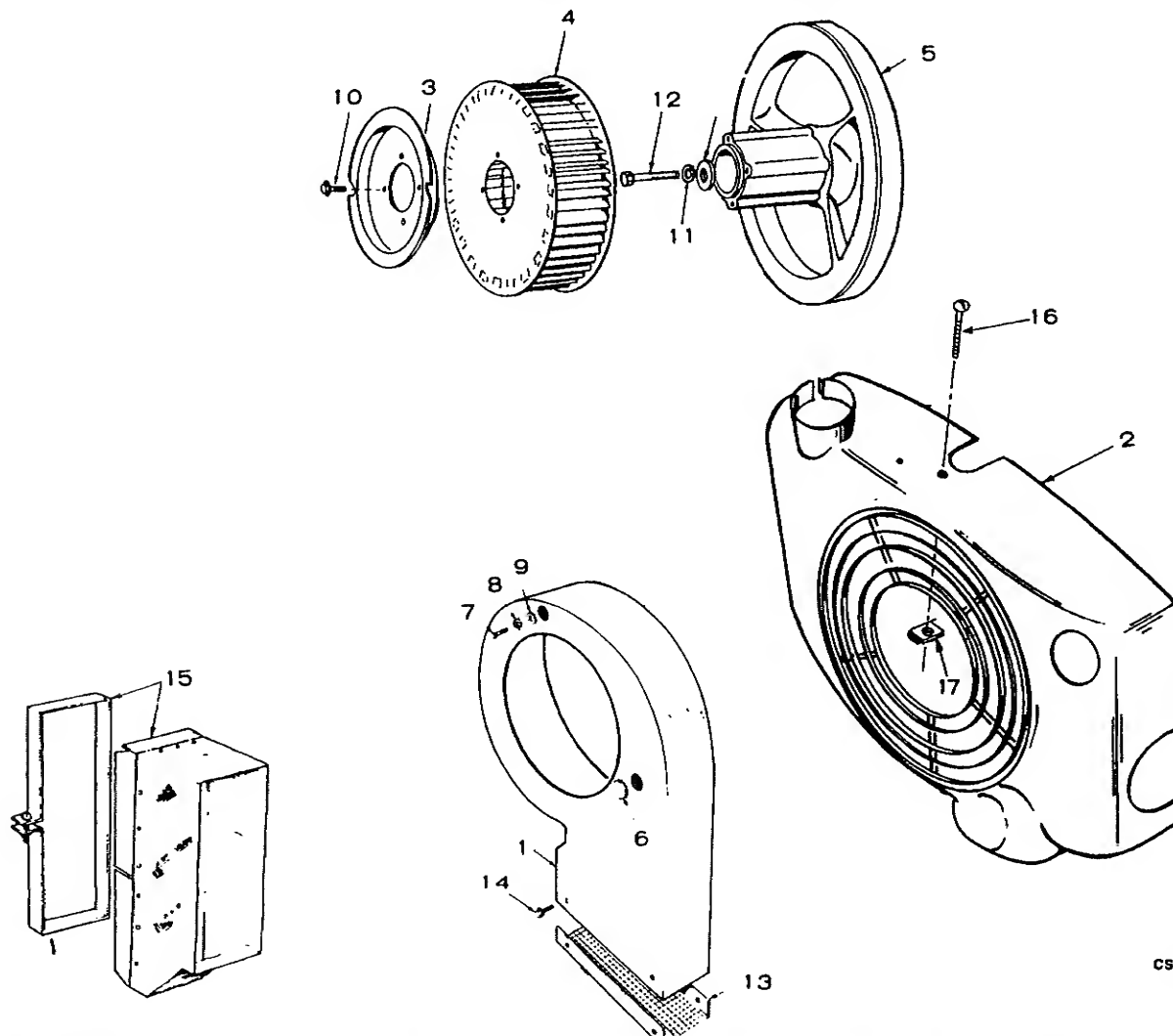


REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	152-0170	1	Lever, Throttle Control
2	800-0005	1	Screw, Cap - Hex Head (1/4-20 x 3/4")
3	526-0015	2	Washer, Flat (9/32" ID x 9/16" OD x 1/16" Thk)
4	152-0041	1	Washer, Tension
5	870-0065	1	Nut, Hex Self Locking (1/4-20)
6	150-0621	1	Nut, Special - Speed Adjusting Stud
8	815-0199	2	Screw, Machine - Fillister Head (#10-32 x 5/16")
9	870-0131	2	Nut, Hex with ET Lock Washer (10-32)
10	800-0002	2	Screw, Cap - Hex Head (1/4-20 x 3/8")
11	850-0040	2	Washer, Lock - Spring (1/4")
12	501-0004	1	Line, Oil
13	502-0055	1	Elbow, Pipe
14	502-0002	1	Elbow, Inverted Male
15	193-0005	1	Gauge, Oil Pressure
16	302-1361	1	Ammeter (20-0-20) (Includes Parts Marked *)
17	334-0028	1	Lead (4 foot pieces of wire)
18	517-0009	1	Plug, Dot Button
19	308-0029	1	Switch, Start
20	308-0232	1	Switch, Stop
21	153-0328	1	Cable, Choke
22	301-2780	1	Bracket, Engine Control
23	150-1000	1	Extension, Governor Arm
24	815-0181	1	Screw, Cap - Hex Head W/ET (#10-32 x 1/2")
25	502-0020	1	Elbow, Pipe - Street Brass, 90° (1/8 NPT)
—	302-0270	1	*Hardware Mounting Package.

* - Parts Included in 302-1361 Ammeter.

927-0404 (APRIL 1981)

OPTION 14 **AIR HOUSING - VACU-FLO COOLING (AND FLYWHEEL)**



CS-1073

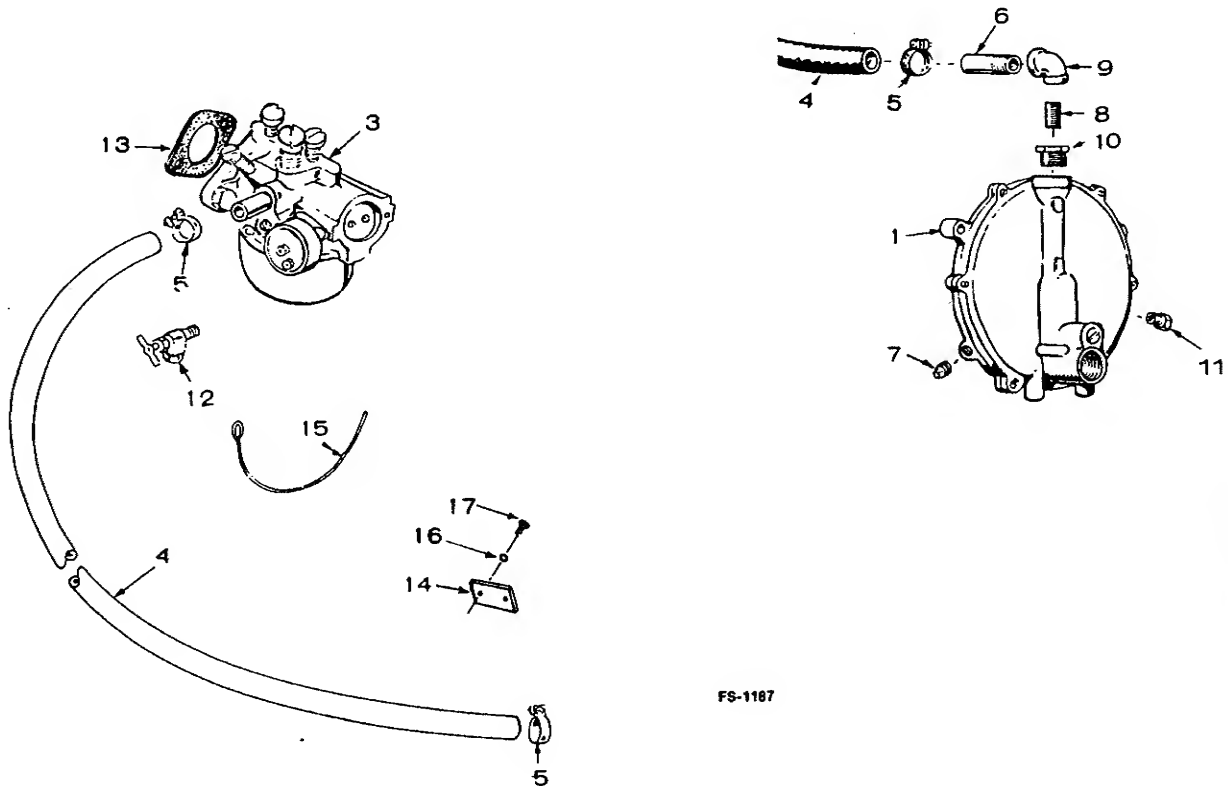
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	134-3103	1	Mounted in 6 o'clock position	10	800-0010	4	Screw, Cap - Hex Head (1/4-20 x 1-3/4")
	134-3070	1	Mounted in 9 o'clock position	11	850-0040	4	Washer, Lock - Spring (1/4")
	134-3041	1	Mounted in 3 o'clock or 12 o'clock position	12	104-0170	1	Screw, Cap - Hex Head (Special) - Flywheel Mounting
2	134-2828	1	Begin Spec J	13	134-2956	1	†Guard, Scroll Outlet
	134-2138	1	Spec G and H	14	815-0421	4	†Screw, Machine - Hex Head (#10-16 x 1/2")
3	192-0272	1	Sheave, Rope	15	405-1059	1	Anti-Vibration Package
4	134-0565	1	Wheel, Blower	16	812-0099	1	Screw, Round Head - Machine - Coil Mounting - Begin Spec J (10-24 x 7/16")
5	104-0302	1	Standard	17	870-0177	1	Nut, Speed - Coil Mounting - Begin Spec J (#10)
	104-0491	1	Engine with Optional Spark Advance				
6	517-0021	2	Plug, Dot Button				
7	800-0002	4	Screw, Cap - Hex Head (1/4-20 x 3/8")				
8	853-0013	4	Washer, Lock - ET (1/4")				
9	526-0015	4	Washer, Flat (9/32" ID x 9/16" OD x 1/16" Thk)				

* - Vacu-flo units with oil filter also see Oil Filter Group - Option 8.
† - Parts included in Air Discharge Scroll Assembly.

927-0404 (APRIL 1981)

C10

OPTION 15 **FUEL SYSTEM (GASEOUS FUEL)**



FS-1187

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
	148-0390	1	Repair Kit, Gas Regulator
1	148-0311	1	Regulator, Gas (Garretson Manufacturer).
3	*CARBURETOR, GAS-GASOLINE (Includes Mounting Gasket) (Includes Parts Marked †)		
	143-0338	1	Spec G Only (Manual Choke)
	141-0887	1	Begin Spec H (Manual Choke)
	143-0339	1	Spec G Only (Electric Choke)
	141-0888	1	Begin Spec H (Electric Choke)
3	*CARBURETOR, GAS (Includes Mounting Gasket) (Includes Parts Marked †)		
	141-0840	1	Spec G Only
	141-0892	1	Begin Spec H
4	503-0315	1	Hose, Regulator to Carburetor (1/2" ID x 2 FT)
5	503-0032	2	Clamp, Hose
6	505-0302	1	Nipple (1/4 x 1-1/2"), Half
7	505-0057	1	Plug (1/8") - Regulator

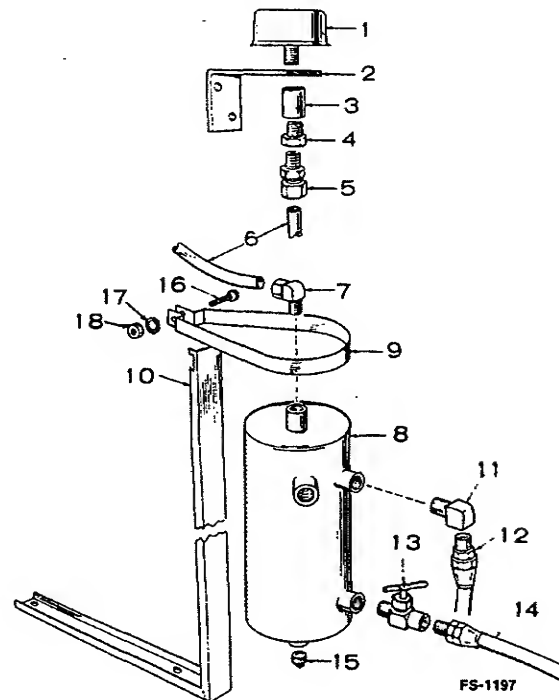
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
8	505-0099	1	Nipple (1/4 x 7/8") - Regulator Outlet
9	505-0038	1	Elbow (1/4") - Regulator Outlet
10	505-0017	1	Bushing (3/8 x 1/4") Regulator Outlet
11	148-0107	1	Vent, Regulator
12	504-0007	1	Valve, Shut-Off - Fuel Pump Inlet
13	141-0281	1	†Gasket, Carburetor Mounting
14	149-0136	1	Plate, Fuel Pump Hole Crankcase (Gas Fuel Sets)
15	143-0231	1	Wire, Choke Stop (Gas-Gasoline Units)
16	526-0063	2	Washer, Flat, Copper (17/64" ID x 7/16 OD x 1/32" Thk)
17	806-0009	2	Screw, Cap - Counterbore (1/4-20 x 1.1")

* - See Separate Group for Components and Gasket Kit.

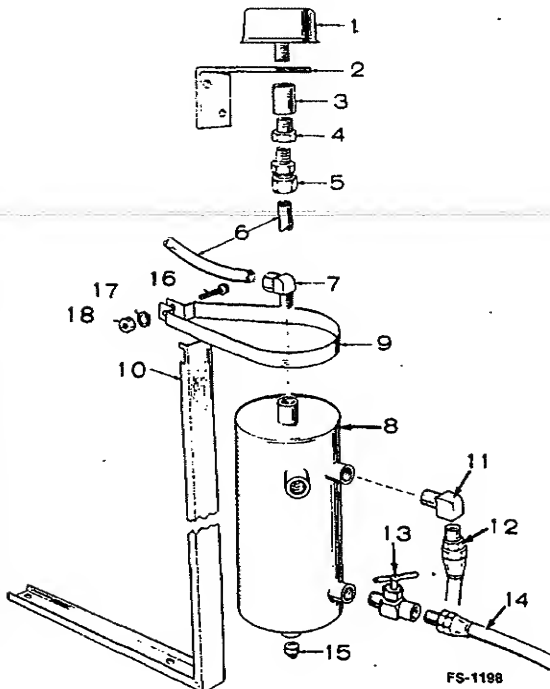
† - Parts Included in 141-0840/141-0887/141-0888/141-0892 Carburetor Kit.

OPTION 16 RESERVOIR (DAY) TANK (ONE QUART)

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
	159-0591	1	Kit, Tank (Includes all parts in this group)
1	159-0041	1	Cap, Vent
2	415-0055	1	Bracket, Vent Cap
3	505-0028	1	Coupling, Pipe
4	505-0016	1	Bushing, Reducer (3/8 to 1/8")
5	502-0116	1	Connector, Compression
6	159-0345	1	Tubing, Copper (5/16 x 12")
7	502-0024	1	Elbow, Compression (90°)
8	159-0294	1	Tank, Reservoir
9	159-0556	1	Band, Reservoir Tank
10	159-0612	1	Bracket, Reservoir Tank Mounting
11	502-0020	1	Elbow, Street (90°)
12	501-0005	1	Line, Fuel - to Fuel Pump (18")
13	504-0086	1	Valve, Shut-off
14	501-0007	1	Line, Fuel - to Carburetor (24")
15	505-0057	1	Plug, Tank Drain
16	812-0156	1	Screw, Machine - Round Head (1/4-20 x 1-1/2")
17	850-0040	1	Washer, Lock - Spring (1/4")
18	862-0001	1	Nut, Hex (1/4-20)



OPTION 17 RESERVOIR (DAY) TANK (TWO QUART)



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
	159-0942	1	Kit, Tank (Includes all parts in this group)
1	159-0041	1	Cap, Vent
2	415-0055	1	Bracket, Vent Cap
3	505-0028	1	Coupling, Pipe
4	505-0016	1	Bushing, Reducer (3/8 to 1/8")
5	502-0116	1	Connector, Compression
6	159-0345	1	Tubing, Copper (5/16 x 12")
7	502-0024	1	Elbow, Compression (90°)
8	159-0746	1	Tank, Reservoir
9	159-0936	1	Band, Reservoir Tank
10	159-0612	1	Bracket, Reservoir Tank Mounting
11	502-0020	1	Elbow, Street (90°)
12	501-0005	1	Line, Fuel - to Fuel Pump (18")
13	504-0086	1	Valve, Shut-off
14	501-0007	1	Line, Fuel - to Carburetor (24")
15	505-0057	1	Plug, Tank Drain
16	812-0156	1	Screw, Machine - Round Head (1/4-20 x 1-1/2")
17	850-0040	1	Washer, Lock - Spring (1/4")
18	862-0001	1	Nut, Hex (1/4-20)

This diagram illustrates the assembly of a portable engine. The components are labeled as follows:

- 1**: Main engine housing or frame.
- 2**: Upper curved support rail.
- 3**: Lower curved support rail.
- 4**: Fuel line or hose connection.
- 5**: Fuel tank or reservoir.
- 6**: Vertical support post or rod.
- 7**: Base plate or mounting bracket.
- 8**: Small fastener or pin.
- 9**: Fuel filter or vent line.
- 10**: Small vertical support post.
- 11**: Small fastener or pin.
- 12**: Hook or latch mechanism.
- 13**: Small circular cap or plug.

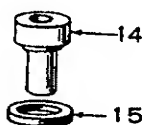
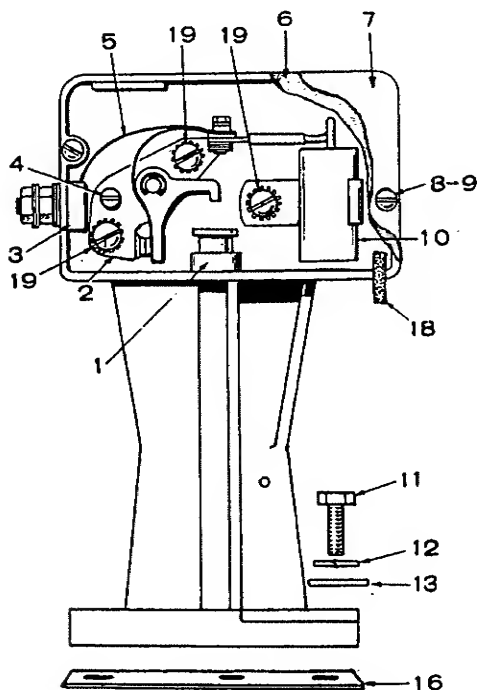
The diagram shows the engine (1) being positioned between the support rails (2 and 3) and secured with various fasteners (8, 11). The fuel system components (4, 5, 6, 9) are connected to the engine. The base plate (7) and hook (12) are also shown in their relative positions.

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
7	504-0013	1	†Valvo, Shut-off
8	505-0057	1	†Plug, Tank Drain
9	502-0020	1	†Elbow, Carburetor Inlet
10	813-0108	2	†Screw, Machine - Round Head (#10-32 x 1-1/2")
11	870-0053	2	†Nut, Hex (#10-32)
12	159-0020	1	†Cap, Fuel Tank (For 2-5/16" Filler Neck) - Late Models
13	159-0007	1	Cap, Fuel Tank (For 1-3/4" Filler Neck) - Early Models

C13

927-0404 (APRIL 1981)

OPTION 19 **BREAKER BOX (HIGH PROFILE)**

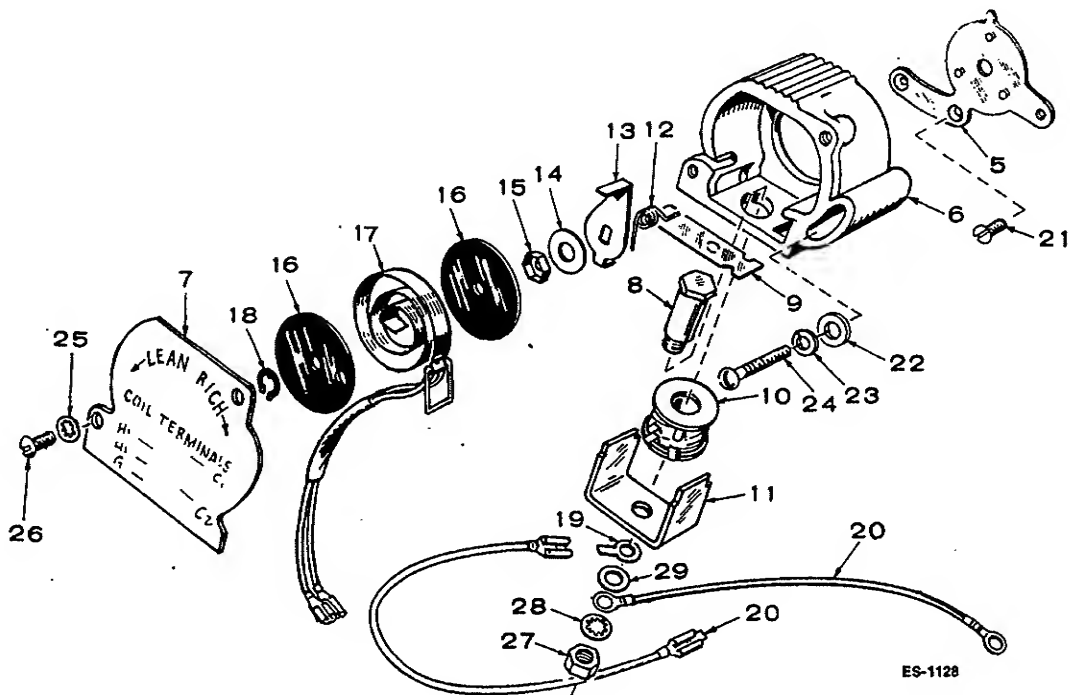


ES-1124

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
	160-1135	1	Box Assembly, (Includes Parts Marked *)
1	160-0931	1	*Guide, Plunger
2	160-0002	1	*Point Set
3	160-0349	1	*Terminal and Block Assembly
4	160-0075	1	*Cam, Point Adjusting
5	160-0428	1	*Strap, Point Set to Terminal
6	160-0150	1	*Gasket, Cover
7	160-0930	1	*Cover, Breaker Box
8	850-0025	2	*Washer, Lock - Spring (#8)
9	812-0077	2	*Screw, Machine - Round Head (#8-32 x 3/8")
10	312-0069	1	*Condenser (.3 Mfd)
11	802-0035	2	*Screw, Socket Head (1/4-20 x 7/8")
12	850-0040	2	*Washer, Lock - Spring (1/4")
13	526-0214	2	Washer, Flat (17/64 ID x 1/2 OD x 1/16 Thk)
14	BUSHING, GUIDE		
	160-1041	1	*Begin Spec J
	160-0929	1	Spec A through H
15	160-1040	1	*Gasket, Mounting - Begin Spec J
16	160-0043	1	Gasket, Spec A through H
17	160-0723	1	*Plunger, Breaker
18	160-0261	1	*Wick
19	815-0285	3	*Screw, Machine - Round Head W/ET Washer (#8-32 x 5/16")

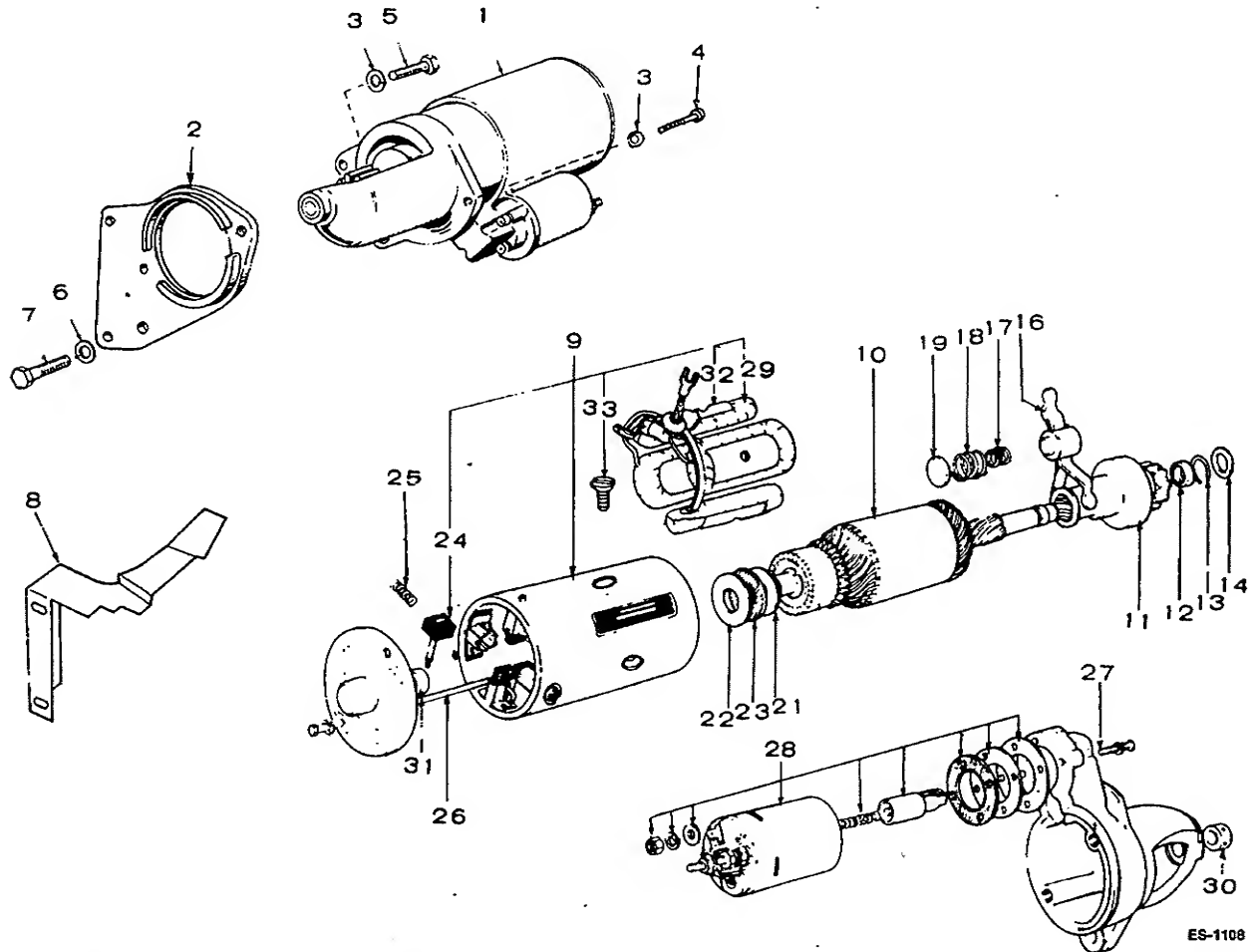
* - Parts Included in 160-1135 Breaker Box Assembly.

OPTION 20 THERMO MAGNETIC CHOKE



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION	REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
	153-0429	1	Replacement Kit (Includes Complete Choke - less leads)	18	518-0129	1	Ring, Retainer
5	153-0385	1	Plate, Mounting	19	332-0876	1	Terminal Ground
6	153-0386	1	Body	20	LEAD, CHOKE		
7	153-0389	1	Cover		336-1550	1	Choke to Ground
8	153-0391	1	Core, Solenoid		336-1549	1	Choke Solenoid Ground
9	153-0395	1	Armature	21	815-0161	2	Screw (10-32 x 3/8")
10	307-1203	1	Coil, Solenoid Assembly	22	526-0008	1	Washer, Flat
11	153-0392	1	Frame, Solenoid	23	850-0030	1	Washer (#10), Lock
12	153-0387	1	Spring	24	813-0107	1	Screw (10-32 x 1-1/4")
13	153-0390	1	Lever, Thermostat	25	854-0007	2	Washer (#8), Lock
14	526-0018	1	Washer	26	812-0076	2	Screw (8-32 x 5/16")
15	870-0134	1	Pin, Nut (1/4-20)	27	862-0015	1	Nut, Hex (5/16-18)
16	153-0399	2	Insulator	28	854-0017	1	Washer, (5/16), Lock
17	153-0400	1	Heater Assembly	29	526-0022	1	Washer, Flat

OPTION 21 **STARTER (SOLENOID SHIFT) KEY 2**



ES-1108

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	191-0790	1	Motor, Starter (Includes Parts Marked *)
2	191-0508	1	Flange, Starter Motor
3	850-0050	2	Washer, Lock - Spring (3/8")
4	800-0049	1	Screw, Cap - Hex Head (3/8-16 x 7/8")
5	800-0050	1	Screw, Cap - Hex Head (3/8-16 x 1")
6	850-0050	2	Washer, Lock - Spring (3/8")
7	102-0455	2	Screw, Cap - Hex Head (Special)
8	134-2131	1	Baffle, Air
9	191-0806	1	*Yoke Assembly (Frame) - (Includes Parts Marked Δ)
10	191-0743	1	*Armature
11	191-0744	1	*Clutch
12	191-0745	1	*Stop, Pinion
13	191-0746	1	*Ring
14	191-0747	1	*Washer, Plain

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
16	191-0749	1	*Lever Assembly
17	191-0750	1	*Spring, Lever
18	191-0751	1	*Spring, Lever
19	191-0752	1	*Holder, Spring
21	191-0754	1	*Washer, Plain
22	191-0755	1	*Washer, Plain
23	191-0756	1	*Washer, Insulation
24	191-0757	4	*Δ Brush
25	191-0758	4	*Spring, Brush
26	191-0759	2	*Bolt, Through
27	191-0760	3	*Screw, Machine
28	191-0761	1	*Switch Assembly, Solenoid
29	191-0762	1	*Δ Coil Assembly, Field
30	191-0763	1	*Bearing, Front
31	191-0764	1	*Bearing, Rear
32	191-0765	4	*Δ Pole Shoe
33	191-0766	4	*Δ Screw

* - Parts Included in 191-0790 Starter Motor.

Δ - Parts Included in 191-0806 Yoke Assembly.

927-0404 (APRIL 1981)

D2

This diagram illustrates the assembly of a mechanical component, likely a bracket or support. The parts are numbered 1 through 14. Part 1 is a bolt, 2 is a washer, 3 is a vertical plate with a horizontal flange, 4 is a screw, 5 is a triangular plate, 6 is a nut, 7 is a small circular pin, 8 is a washer, 9 is a nut, 10 is a long threaded rod, 11 is a nut, 12 is a bolt, 13 is a curved bracket, and 14 is a screw. Dashed lines indicate the assembly sequence and alignment of the parts.

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
	152-0085	1	Bracket and Control Arm Assembly Variable Speed - Complete (Includes Parts Marked *)
1	800-0005	1	*Screw, Cap - Hex Head (1/4-20 x 3/4")
2	526-0015	2	*Washer, Flat (9/32" ID x 9/16" OD x 1/16" Thk)
3	152-0083	1	*Lever, Control
4	815-0199	2	*Screw, Machine - Fillister Head (#10-32 c 5/16")
5	152-0086	1	*Bracket, Mounting
6	870-0131	2	*Nut, Hex with ET Lock Washer (#10-32)
8	152-0041	1	*Washer, Tension
9	870-0065	1	*Nut, Hex - Self Locking (1/4-20)
10	152-0090	1	Stud, Speed Adjusting
11	150-0621	1	Nut, Special - Speed Adjusting Stud
12	821-0008	2	Screw, Cap - Hex Head Locking (1/4-20 x 5/16")
13	150-1000	1	Extension, Governor Arm
14	815-0181	1	Screw, Cap - Hex Head with ET Lock Washer (#10-32 x 1/2")

OPTION 23 FUEL FILTER

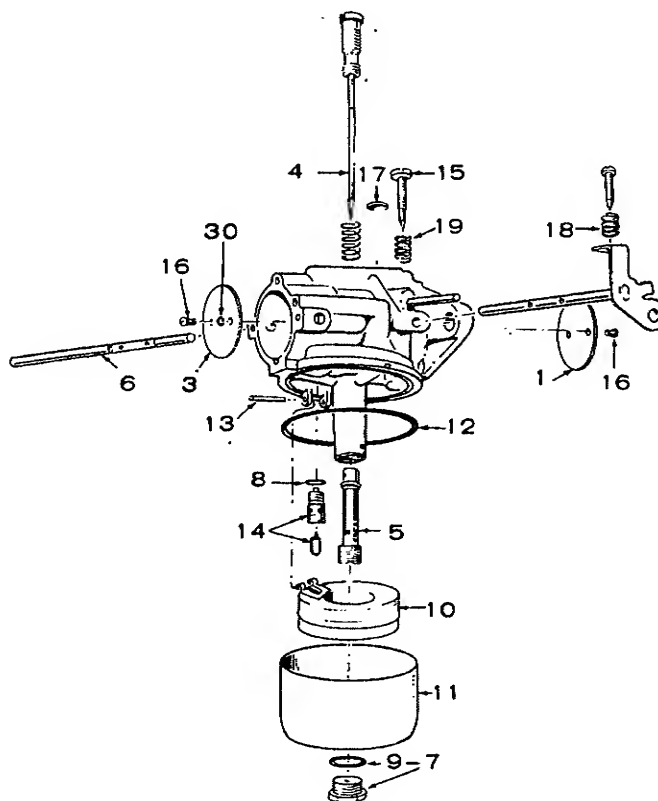
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	149-0079	1	Bowl Assembly, Sediment - Complete (Includes Parts Marked *)
2	149-0150	1	*Bowl Only
3	149-0149	1	*Gasket, Bowl Mounting
4	149-0202	1	*Screen

OPTION 24 **CARBURETOR PARTS (GASOLINE, ELECTRIC CHOKE) SPEC G ONLY)**

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
	141-0792	1	Carburetor, Gasoline - Electric Choke (Includes Mounting Gasket)
	143-0332	1	Kit, Carburetor Repair (Includes Parts Marked **)
	143-0201	1	**Kit, Carburetor Gasket (Includes Parts Marked *)
	141-0281	1	*Gasket, Carburetor Flange
1	143-0202	1	Valve, Throttle
3	143-0204	1	Valve, Choke - Electric Choke
4	143-0330	1	**Needle, Idle Jet and High Speed Adjusting
5	143-0329	1	**Nozzle
6	143-0315	1	Shaft, Choke - Electric Choke
7	143-0208	1	Screw and Gasket, Bowl
8	143-0015	1	*Gasket, Fuel Inlet Valve
9	143-0209	1	*Gasket, Bowl Screw
10	143-0105	1	Float and Lever
11	143-0210	1	Bowl
12	143-0077	1	*Gasket, Bowl Ring
13	141-0703	1	**Pin, Float Lever
14	143-0341	1	**Valve, Fuel Inlet
15	143-0213	1	Screw, Idle Adjusting
16	812-0014	4	**Screw (#3-48 x 3/16) - Choke and Throttle Valve
17	143-0110	1	Plug Expansion
18	143-0214	1	Spring, Throttle Adjusting Screw
19	143-0112	1	Spring, Idle Adjusting Screw
29	143-0342	1	Diaphragm - Electric Choke
30	854-0003	4	**Washer, Lock (It #3)

* - Parts Included in 143-0201 Carburetor Gasket Kit.

** - Parts Included in 143-0332 Carburetor Repair Kit.

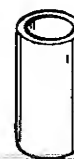
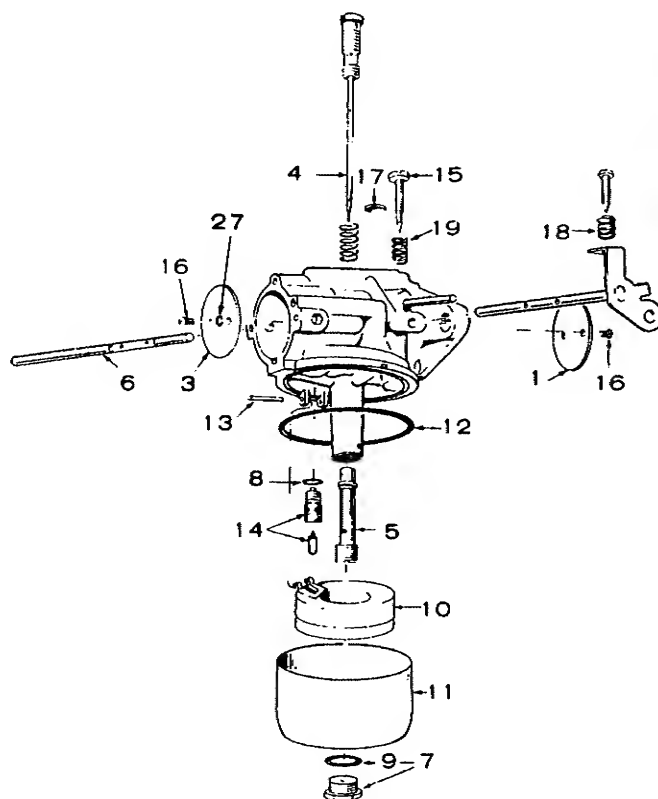


FS-1188

OPTION 25 **CARBURETOR PARTS (GAS-GASOLINE, MANUAL CHOKE) SPEC G ONLY**

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
	143-0338	1	Carburetor, Gas-Gasoline Manual Choke (Includes Mounting Gasket)
	143-0332	1	Kit, Carburetor Repair (Includes Parts Marked **)
	143-0201	1	**Kit, Carburetor Gasket (Includes Parts Marked *)
	141-0281	1	*Gasket, Carburetor Flange
1	143-0202	1	Valve, Throttle
3	143-0220	1	Valve, Choke - Manual Choke
4	143-0330	1	**Needle, Idle Jet and High Speed Adjusting
5	143-0329	1	**Nozzle
6	143-0221	1	Shaft and Lever, Choke - Manual Choke
7	143-0208	1	Screw and Gasket, Bowl
8	143-0015	1	*Gasket, Fuel Inlet Valve
9	143-0209	1	*Gasket, Bowl Screw
10	143-0105	1	Float and Lever
11	143-0210	1	Bowl
12	143-0077	1	*Gasket, Bowl Ring
13	141-0703	1	**Pin, Float Lever
14	143-0341	1	**Valve, Fuel Inlet
15	143-0213	2	Screw, Idle Adjusting
16	812-0014	4	**Screw (#3-48 x 3/16") - choke and Throttle Valve
17	143-0110	1	Plug, Expansion
18	143-0214	1	Spring, Throttle Adjusting Screw
19	143-0112	2	Spring, Idle Adjusting Screw
24	145-0308	1	Tube, Gas Inlet - Gas-Gasoline Only
27	854-0003	4	**Washer, Lock (It #3)

* - Parts Included in 143-0201 Carburetor Gasket Kit.
 ** - Parts Included in 143-0332 Carburetor Repair Kit.



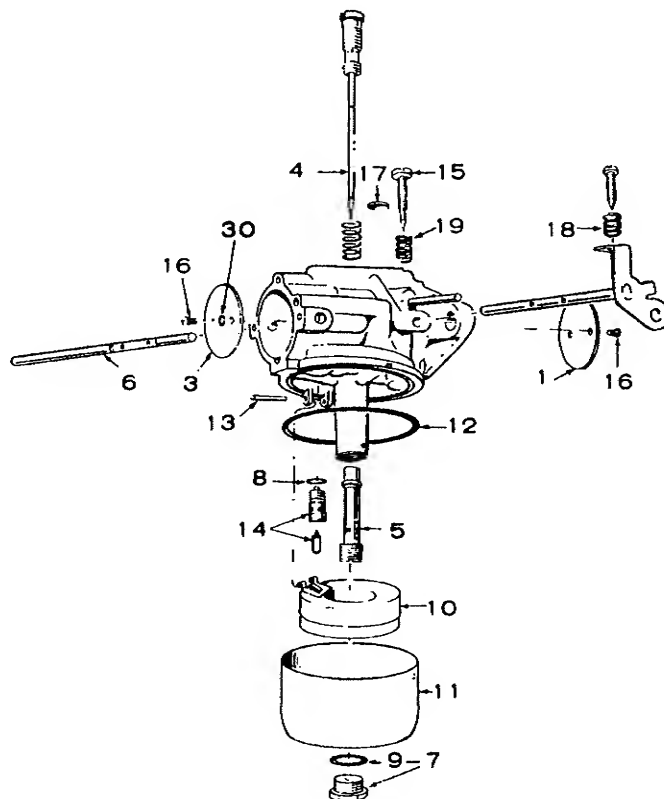
FS-1189

24

OPTION 26 **CARBURETOR PARTS (GAS-GASOLINE, ELECTRIC CHOKE) SPEC G ONLY**

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
	143-0339	1	Carburetor, Gas-Gasoline Electric Choke (Includes Mounting Gasket)
	143-0332	1	Kit, Carburetor Repair (Includes Parts Marked **)
	143-0201	1	**Kit, Carburetor Gasket (Includes Parts Marked *)
	141-0281	1	*Gasket, Carburetor Flange
1	143-0202	1	Valve, Throttle
3	143-0204	1	Valve, Choke - Electric Choke
4	143-0330	1	**Needle, Idle Jet and High Speed Adjusting
5	143-0329	1	**Nozzle
6	143-0315	1	Shaft, Choke - Electric Choke
7	143-0208	1	Screw and Gasket, Bowl
8	143-0015	1	*Gasket, Fuel Inlet Valve
9	143-0209	1	*Gasket, Bowl Screw
10	143-0105	1	Float and Lever
11	143-0210	1	Bowl
12	143-0077	1	*Gasket, Bowl Ring
13	141-0703	1	**Pin, Float Lever
14	143-0341	1	**Valve, Fuel Inlet
15	143-0213	2	Screw, Idle Adjusting
16	812-0014	4	**Screw (#3-48 x 3/16") - choke and Throttle Valve
17	143-0110	1	Plug, Expansion
18	143-0214	1	Spring, Throttle Adjusting Screw
19	143-0112	2	Spring, Idle Adjusting Screw
24	145-0308	1	Tube, Gas Inlet
29	143-0342	1	Diaphragm - Electric Choke
30	854-0003	4	*Washer, Lock (It #3)

* - Parts Included in 143-0201 Carburetor Gasket Kit.
 ** - Parts Included in 143-0332 Carburetor Repair Kit.



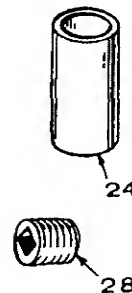
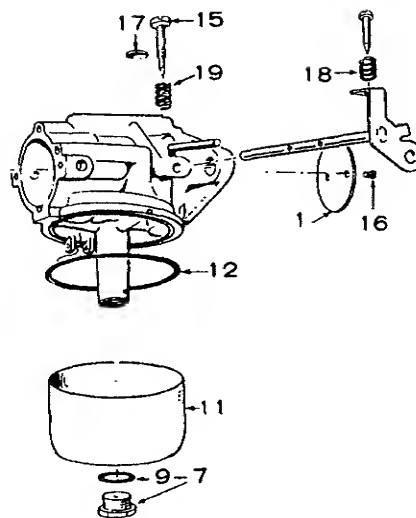
FS-1190

OPTION 27 **CARBURETOR PARTS (GAS) SPEC G ONLY**

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
	141-0840	1	Carburetor, Gas (Includes Mounting Gasket)
	143-0332	1	Kit, Carburetor Repair (Includes Parts Marked **)
	143-0201	1	**Kit, Carburetor Gasket (Includes Parts Marked *)
	141-0281	1	*Gasket, Carburetor Flange
1	143-0202	1	Valve, Throttle
7	143-0208	1	Screw and Gasket, Bowl
9	143-0209	1	*Gasket, Bowl Screw
11	143-0210	1	Bowl
12	143-0077	1	*Gasket, Bowl Ring
15	143-0213	1	Screw, Idle Adjusting
16	812-0014	4	**Screw (#3-48 x 3/16") - Choke and Throttle Valve
17	143-0110	1	Plug, Expansion
18	143-0214	1	Spring, Throttle Adjusting Screw
19	143-0112	1	Spring, Idle Adjusting Screw
24	145-0308	1	Tube, Gas Inlet
28	505-0008	1	Plug (1/8")

* - Parts Included in 143-0201 Carburetor Gasket Kit.

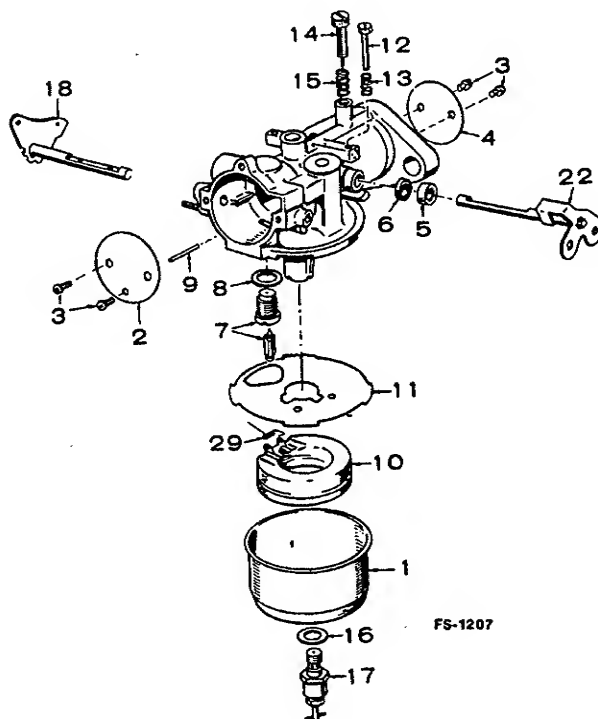
** - Parts Included in 143-0332 Carburetor Repair Kit.



FS-1191

OPTION 28 **CARBURETOR PARTS (GASOLINE, ELECTRIC CHOKE) BEGIN SPEC H**

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
	141-0879	1	Carburetor, Gasoline - Electric Choke (Includes Mounting Gasket)
	141-0797	1	Kit, Carburetor Repair (Includes Parts Marked *)
	141-0748	1	*Kit, Carburetor Gasket (Includes Parts Marked £)
	141-0281	1	£*Gasket, Carburetor Flange
1	141-0708	1	Bowl, Fuel
2	141-0741	1	Plate, Choke
3	141-0698	4	Screw & Washer, Choke and Throttle Plate Mounting
4	141-0706	1	Plate, Throttle
5	141-0705	1	*Retainer, Seal
6	141-0661	1	£*Seal, Rubber
7	141-0830	1	*Valve Seat Assembly, Fuel
8	141-0811	1	£Washer, Fuel Valve Seat
9	141-0703	1	*Shaft, Float
10	141-0702	1	Float Assembly
11	141-0701	1	£*Gasket, Bowl to Body
12	141-0700	1	Screw, Throttle Stop
13	141-0711	1	Spring, Throttle Stop
14	141-0713	1	Needle, Idle Adjusting
15	141-0710	1	Spring, Idle Needle
16	141-0077	1	£*Washer, Main Jet Assembly
17	141-0712	1	Jet Assembly, Main (Adjustable)
18	141-0679	1	Shaft, Choke
22	141-0709	1	Shaft and Lever Throttle
29	141-0799	1	*Spring, Float

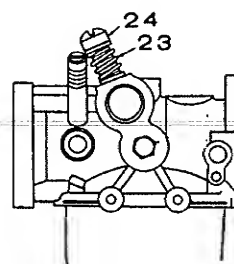
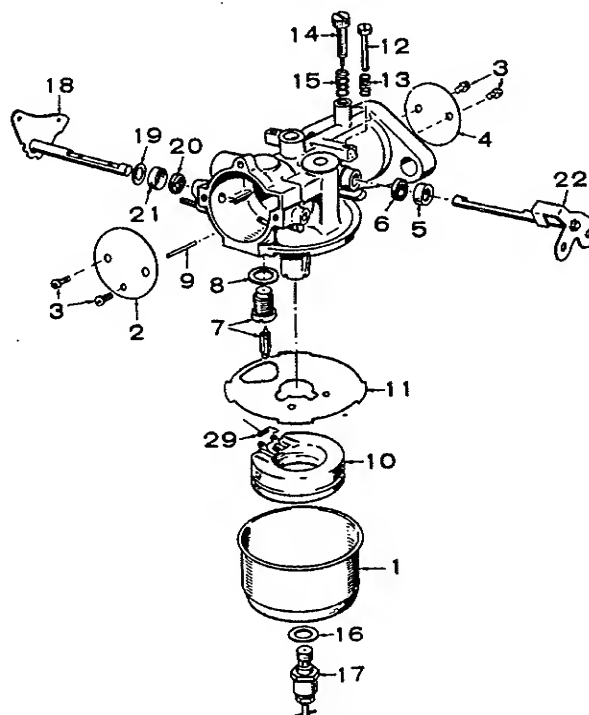


* - Parts Included in 141-0797 Carburetor Repair Kit.
£ - Parts Included in 141-0748 Carburetor Gasket Kit.

OPTION 29 **CARBURETOR PARTS (GAS-GASOLINE, MANUAL CHOKE) BEGIN SPEC H**

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
	141-0887	1	Carburetor, Gas-Gasoline Manual Choke (Includes Mounting Gasket)
	141-0747	1	Kit, Carburetor Repair (Includes Parts Marked *)
	141-0748	1	*Kit, Carburetor Gasket (Includes Parts Marked £)
	141-0281	1	£*Gasket, Carburetor Flange
1	141-0708	1	Bowl, Fuel
2	141-0741	1	Plate, Choke
3	141-0698	4	Screw & Washer, Choke and Throttle Plate Mounting
4	141-0706	1	Plate, Throttle
5	141-0705	1	*Retainer, Seal
6	141-0661	1	£*Seal, Rubber
7	141-0830	1	*Valve Seat Assembly, Fuel
8	141-0811	1	£Washer, Fuel Valve Seat
9	141-0703	1	*Shaft, Float
10	141-0702	1	Float Assembly
11	141-0701	1	£*Gasket, Bowl to Body
12	141-0700	1	Screw, Throttle Stop
13	141-0711	1	Spring, Throttle Stop
14	NEEDLE, IDLE ADJUSTING		
	141-0713	2	Gas-Gasoline Units
15	SPRING, IDLE NEEDLE		
	141-0710	2	Gas-Gasoline Units
16	141-0077	1	£*Washer, Main Jet Assembly
17	141-0712	1	Jet Assembly, Main (Adjustable)
18	SHAFT, CHOKE		
	141-0742	1	Manual Choke Units
19	141-0699	1	Washer
20	141-0697	1	£*Seal, Felt
21	141-0203	1	*Retainer, Felt Seal
22	141-0709	1	Shaft and Lever, Throttle
23	141-0733	1	Spring, Main Gas Needle
24	141-0734	1	Needle, Main Gas Adjusting
29	141-0799	1	*Spring, Float

* - Parts Included in 141-0747 Carburetor Repair Kit.
£ - Parts Included in 141-0748 Carburetor Gasket Kit.

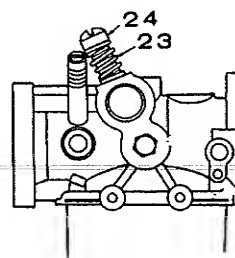
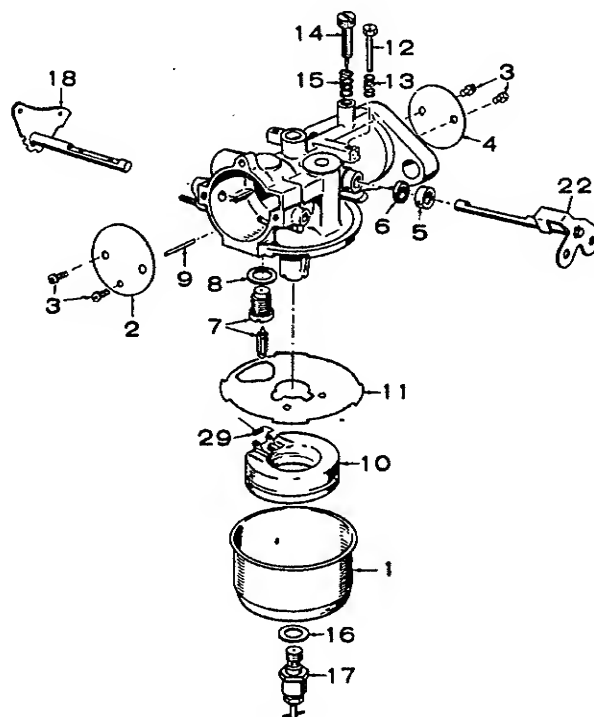


FS-1206

OPTION 30 **CARBURETOR PARTS (GAS-GASOLINE, ELECTRIC CHOKE) BEGIN SPEC H**

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
	141-0888	1	Carburetor, Gas-Gasoline Electric Choke (Includes Mounting Gasket)
	141-0747	1	Kit, Carburetor Repair (Includes Parts Marked *)
	141-0748	1	*Kit, Carburetor Gasket (Includes Parts Marked £)
	141-0281	1	£*Gasket, Carburetor Flange
1	141-0708	1	Bowl, Fuel
2	141-0741	1	Plate, Choke
3	141-0698	4	Screw & Washer, Choke and Throttle Plate Mounting
4	141-0706	1	Plate, Throttle
5	141-0705	1	*Retainer, Seal
6	141-0661	1	£*Seal, Rubber
7	141-0830	1	*Valve Seat Assembly, Fuel
8	141-0811	1	£Washer, Fuel Valve Seat
9	141-0703	1	*Shaft, Float
10	141-0702	1	Float Assembly
11	141-0701	1	£*Gasket, Bowl to Body
12	141-0700	1	Screw, Throttle Stop
13	141-0711	1	Spring, Throttle Stop
14	NEEDLE, IDLE ADJUSTING		
	141-0713	2	Gas-Gasoline Units
15	SPRING, IDLE NEEDLE		
	141-0710	2	Gas-Gasoline Units
16	141-0077	1	£*Washer, Main Jet Assembly
17	141-0712	1	Jet Assembly, Main (Adjustable)
18	SHAFT, CHOKE		
	141-0679	1	Electric Choke
22	141-0709	1	Shaft and Lever, Throttle
23	141-0733	1	Spring, Main Gas Needle Gas-Gasoline Units
24	141-0734	1	Needle, Main Gas Adjusting - Gas-Gasoline Units
29	141-0799	1	*Spring, Float

* - Parts Included in 141-0747 Carburetor Repair Kit.
£ - Parts Included in 141-0748 Carburetor Gasket Kit.



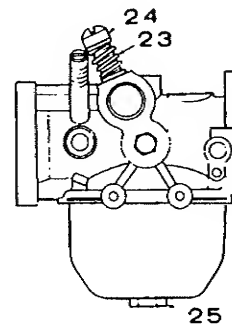
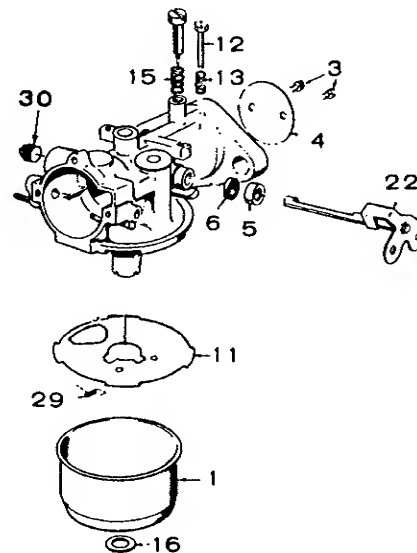
FS-1205

OPTION 31 **CARBURETOR PARTS (GAS) BEGIN SPEC H**

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
	141-0892	1	Carburetor, Gas (Includes Mounting Gasket)
	141-0747	1	Kit, Carburetor Repair (Includes Parts Marked *)
	141-0748	1	*Kit, Carburetor Gasket (Includes Parts Marked £)
	141-0281	1	£Gasket, Carburetor Flange
1	141-0708	1	Bowl, Fuel
3	141-0698	2	Screw & Washer, Choke and Throttle Plate Mounting
4	141-0706	1	Plate, Throttle
5	141-0705	1	*Retainer, Seal
6	141-0661	1	£*Seal, Rubber
11	141-0701	1	£*Gasket, Bowl to Body
12	141-0700	1	Screw, Throttle Stop
13	141-0711	1	Spring, Throttle Stop
14	NEEDLE, IDLE ADJUSTING		
		1	Gas Only Units (Not Available)
15	SPRING, IDLE NEEDLE		
	141-0710	1	Gas Only Units
16	141-0077	1	£*Washer, Main Jet Assembly
22	141-0709	1	Shaft and Lever, Throttle
23	141-0733	1	Spring, Main Gas Needle
24	141-0734	1	Needle, Main Gas Adjusting
25	141-0736	1	Nut, Bowl
29	141-0799	1	*Spring, Float
30	505-0008	1	Plug, Pipe (1/8")

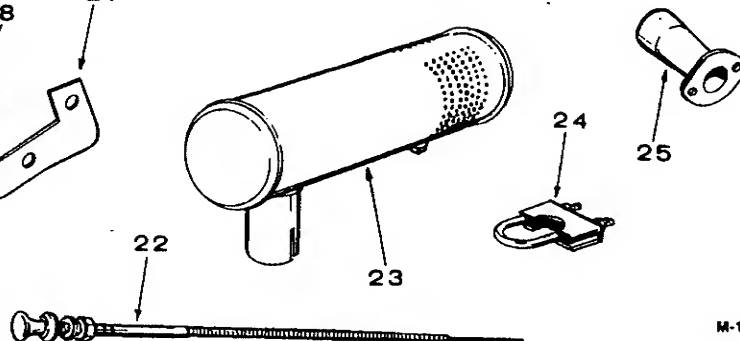
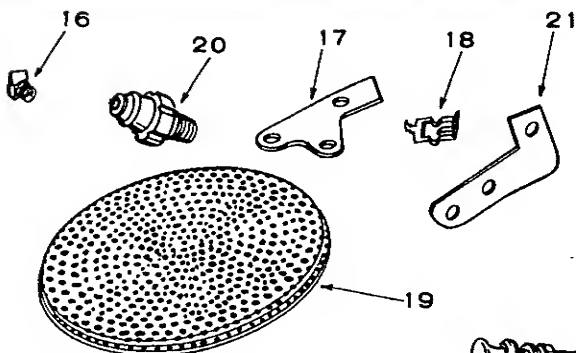
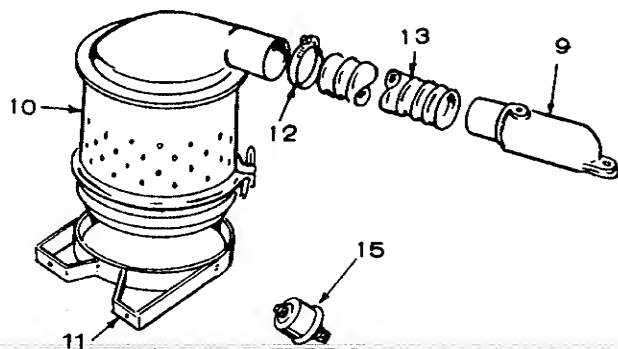
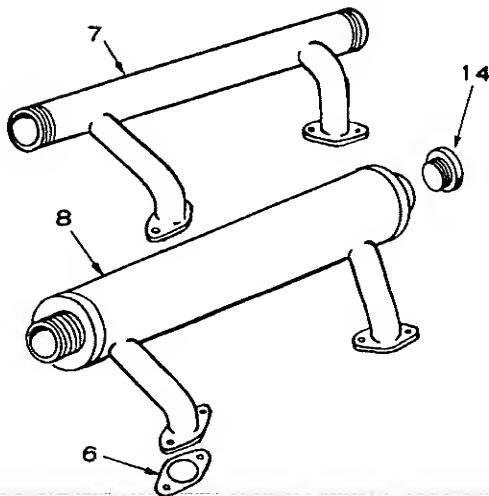
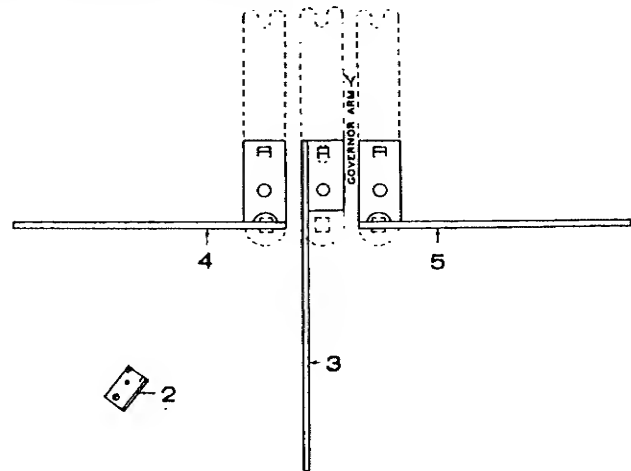
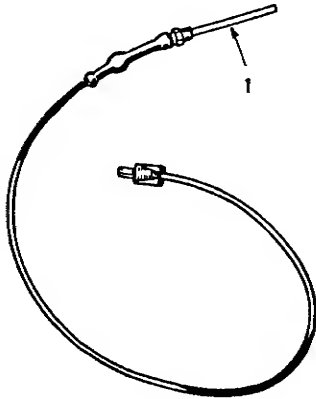
* - Parts Included in 141-0747 Carburetor Repair Kit.

£ - Parts Included in 141-0748 Carburetor Gasket Kit.



FS-1192

MISCELLANEOUS OPTIONAL PARTS



M-1194

D12

927-0404 (APRIL 1981)

MISCELLANEOUS OPTIONAL PARTS

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	102-0558	1	Heater, Oil Base ARM, GOVERNOR PULL - CONSTANT SPEED GOVERNOR
2	150-0635	1	Rear Pull
3	150-0755	1	Front Pull
4	150-0790	1	Left Pull
5	150-0752	1	Right Pull
6	154-0973	2	Gasket, Exhaust Manifold
7	154-0998	1	Manifold, Exhaust
8	155-0906	1	Muffler, Exhaust
9	140-0645	1	Adapter, Air Cleaner
10	140-0500	1	Cleaner, Air
11	140-0519	1	Band, Air Cleaner
12	503-0365	2	Clamp, Air Cleaner Hose
13	503-0444	1	Hose, Air Cleaner (2" ID 10 x 30" lg)
14	505-0618	1	Cap, Pipe (1-1/2")

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
15	193-0108	1	Sender, Oil Pressure
16	502-0053	1	Elbow, Street (45°)
17	153-0327	1	Bracket, Choke
18	518-0176	1	Clip, Choke Bracket
19	134-1889	1	Guard, Flywheel - Rotating
20	309-0237	1	Pressure Switch - Low Oil (8-10 PSI)
21	153-0464	1	Bracket, Choke Cable
22	153-0351	1	Cable, Choke Short
23	155-1660	2	Muffler (Ray Gun)
24	155-1239	2	Clamp, Muffler (1-5/8")
25	154-1757	2	Adapter Assembly, Manifold